



18TH ASEAN ORL-HNS CONGRESS

23 – 25 AUGUST 2019

GRAND COTHORNE WATERFRONT HOTEL
SINGAPORE

CONGRESS BOOK



ADVANCING ENT IN ASEAN TOGETHER

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Organised by



AMERICAN ACADEMY OF
OTOLARYNGOLOGY-
HEAD AND NECK SURGERY
FOUNDATION



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MESSAGE FROM THE PRESIDENT, The ASEAN ORL-HNS Federation



Prof Soe Tin

President

The ASEAN ORL-HNS Federation

Dear Colleagues, ASEAN community and all International friends

It is a great pride and privilege to have an opportunity to send a message in this 18th ASEAN ORL-HNS Congress.

The ASEAN ORL-HNS Congress is done every two years among the ASEAN member countries with different “Themes” of the Congress.

It is noted that in 16th ORL-HNS Congress the Theme was “ ASEAN ORL HNS-Together we learn and share”; in 17th ASEAN ORL-HNS Congress the Theme was “United and Concerted to move forward” and in this 18th Congress the Theme is “ Advancing ENT in ASEAN together”.

All the Themes are pointing towards ASEAN Culture, ASEAN Solidary and unity sharing and advancing the knowledge of ORL HNS for all the members of ASEAN Community.

Advancement and enhancement of the technology need international cooperation and integration especially with the highly innovated and research- orientated countries. I am glad to know that in this congress many famous international faculties are involved to share their “State – of – the Art technologies” with our ASEAN Community. This Congress will be the best platform to learn, share and advance your knowledge in all facets of ORL-HNS. I am sure that at the end of this Congress all the participants will be overloaded with cutting-edge technologies to bring home with pleasure.

Wish you all the best.



Dr Barrie Tan

President

18th ASEAN Otorhinolaryngology

Head & Neck Surgery Congress

Dear friends and colleagues

It gives me great pleasure to finally welcome you to Singapore for the 18th ASEAN ORL-HNS Congress. This biennial congress celebrates our ASEAN unity and togetherness as we come together to pursue excellence in our special discipline of Otorhinolaryngology Head and Neck Surgery. Indeed, regional friendships have blossomed immensely in recent years with many of us meeting regularly at instructional workshops organised in various hospitals throughout ASEAN and when we meet each other overseas at international conferences. The ASEAN ORL-HNS Congress builds on that strong foundation, giving us a platform to reunite every 2 years and as our congress motto says, to advance ENT in ASEAN together. It also serves to introduce our younger colleagues and ENT Residents to this spirit of ASEAN community that was first championed by our founders.

This year we honour the memories of 2 of our founders of the ASEAN Federation of Oto-Rhino-Laryngology Head & Neck Societies (ORL-HNS) Societies. Dr Mariano B. Caparas of Philippines and Dr N. Kunaratnam of Singapore both sadly passed on within the last 2 years since the last edition of the ASEAN ORL Congress held in Myanmar in 2017. We celebrate their lives and remember fondly the deep impact they have had on the development of ORL HNS in Philippines and Singapore. Join us for our opening ceremony where there will be a special showcase. We are deeply grateful to their vision for having birthed the ASEAN ORL Federation in 1990 together with Dr. Purnaman S. Pandi of Indonesia, Dr. Imran Gurbachan of Malaysia and Dr. Suchitra Prasansuk of Thailand. Truly, we are all beneficiaries of the legacy of friendship and collaboration that they forged in those early years, blossoming now to a community of 10 ASEAN nations and ORL-HNS Societies.

MESSAGE FROM THE PRESIDENT, 18th ASEAN ORL-HNS Congress 2019

This year's congress brings many of the best minds in the world across 7 subspecialties in ORL-HNS together with a dedicated full day symposium program for Audiology. Over 200 invited teaching faculties from over 26 different countries congregate in Singapore over these 2 and a half days of intense scientific sharing. Bolstering this robust conference are 10 instructional pre and post congress workshops. This congress is being hosted by the Society of Otolaryngology Head & Neck Surgery Singapore (SOHNSS) and it would not have been possible without the unwavering support provided by all the various hospital ENT departments in Singapore. This congress is testimony to the solidarity of the Singapore ENT fraternity with this being a truly national effort. We also recognise the importance of how our nurses and allied health professionals help our patients in their journey towards optimum ENT Health. The Society for Audiology Professionals Singapore (SAPS) and other Allied Health Professionals have partnered us immensely in organising the scientific content of this congress and we are glad that we can work together for the holistic good of our patients.

I would also like to take this opportunity to thank some of our other important partners, collaborators and sponsors. This year's congress is organised as a joint meeting together with the American Academy of Otolaryngology-Head and Neck Surgery/Foundation (AAO-HNS/F) and we highly value the physical presence of numerous colleagues from the American Academy who are joining us for this meeting. Much appreciation also goes to the Korean Society of Otorhinolaryngology-Head and Neck Surgery who have sent a delegation of their Key executive committee leaders and who will be running a special Collaboration Symposium in Otology at our Congress. Such support shown by so many friends far and wide has been immensely moving and we are grateful. We are also thankful for the many sponsors who have come alongside us to make this congress a meaningful and successful one.

Finally, it leaves me to wish you all a wonderful visit to Singapore. This is an especially good time to do so as we celebrate our bicentennial anniversary of Singapore's founding in 1819 by the British. Enjoy the sights, sounds, and foods that make Singapore so colourful and vibrant. We are deeply honoured that you have taken the time to come and be a part of the 18th ASEAN ORL-HNS Congress and we wish you a fantastic time here with us!

MESSAGE FROM THE PRESIDENT, Society of Otolaryngology Head & Neck Surgery Singapore



Adj Asst Prof Lee Tee Sin

President, Society of Otolaryngology -

Head and Neck Surgery Singapore

Vice President, 18th ASEAN Otolaryngology -

Head and Neck Surgery Congress

Dear friends and colleagues

As President of the Society of Otolaryngology - Head & Neck Surgery Singapore, I take great pride and pleasure in welcoming you to Singapore and to the 18th ASEAN ORL-HNS Congress - Advancing ENT in ASEAN Together.

This biennial event brings us together for both academic and social reasons. It serves as a platform for all Otolaryngologists in ASEAN to come together to share experiences and knowledge, and to educate the next generation, while at the same time foster friendships and camaraderie. It has been 18 years since the last time Singapore hosted the Congress in 2001, and it is an honour and privilege to be host once again.

This year, the Congress has been designed to provide an innovative and comprehensive overview of the most recent advances in the field of Otolaryngology. We have put together an impressive 2.5 days of scientific programme consisting of 5 concurrent tracks featuring 7 subspecialties, Otology, Rhinology, Laryngology, Head and Neck Surgery, Paediatric Otolaryngology, Sleep Apnea Surgery, and Facial Plastic Surgery, with renowned international and local teaching faculties. There are also Pre and Post Congress Hands-on Workshops. We aim to showcase our capabilities and expertise in Singapore, and at the same time enhance collaboration amongst the ASEAN countries.

We will also be having the Gala Dinner which is a highlight of the Congress. Representatives from each ASEAN countries will be putting up singing

MESSAGE FROM THE PRESIDENT, Society of Otolaryngology Head & Neck Surgery Singapore

and dancing performances to entertain the night away and for cultural exchange. It is also the night when new friendships form and old friendships rekindle. It will be a night to remember!

The Congress would not be possible without the collaboration and participation of our industry partners and sponsors. I would like to thank them for their immense support and generosity. I would also like to take this opportunity to thank the teaching faculties and the organizing committee for their time and tremendous effort in making this Congress such a success.

Finally, I hope that you will have time to experience and immerse yourself in the history and culture of Singapore, explore the great food and shopping, and interact with the people. I believe by doing so, you will truly enjoy the stay here in this beautiful Lion City. I sincerely hope that you will enjoy the Congress and find it personally rewarding. Thank you!



Albert L. Merati, MD

President, American Academy of
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On behalf of your colleagues and friends in the American Academy of Otolaryngology-Head and Neck Surgery/Foundation, I congratulate the 18th ASEAN ORL-HNS Congress, its leadership and scientific program organizing committee.

Central to the success and meaningful outcomes of collaboration is the interconnectedness, trust, and ability to work together to advance the specialty and patient care on a global scale. The ASEAN congress provides an excellent platform for academic collaboration among neighbors and “friends” in the region and around the world.

We congratulate you and wish you success as you gather in Singapore and unite to improve the care and quality outcomes for our patients worldwide through continued collaboration, friendship and outreach as our global message continues to resonate around the world.

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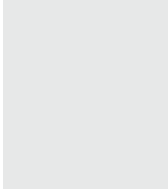
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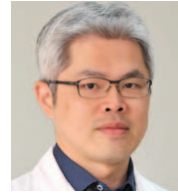
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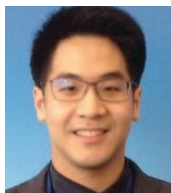
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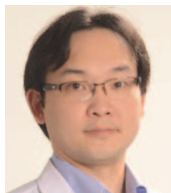
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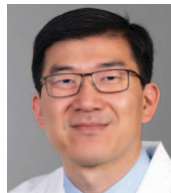
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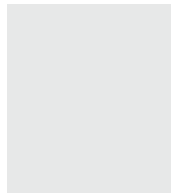
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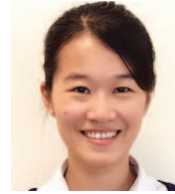
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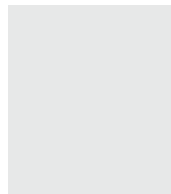
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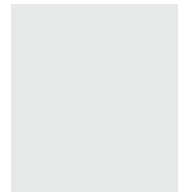
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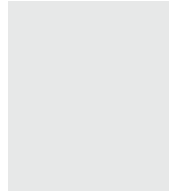
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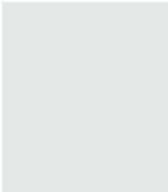
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VENUE

Grand Copthorne Waterfront Hotel
Level 4, Grand Ballroom
392 Havelock Road
Singapore 169663

REGISTRATION DESK HOURS

The registration desk will be located in front of the ballroom, level 4 and will open as follows:

23 August 2019	0700 – 1800 hrs
24 August 2019	0700 – 1800 hrs
25 August 2019	0700 – 1330 hrs

EXHIBITION HOURS

The exhibition is located at the foyer of Level 3 & 4 and will be open as follows:

23 - 24 August 2019	0900 – 1800 hrs
25 August 2019	0900 – 1300 hrs

SCIENTIFIC PROGRAMME

A full interactive Scientific Programme is available on the Congress website.

Certificate of Attendance

Please note that certificates of attendance will not be printed onsite. Certificate of Attendance will be issued to all attendees electronically after the congress. Certificate of Poster/Oral Presentation will be issued upon request after the congress.

Refreshment and Lunch

Refreshments and lunch will be provided daily according to the time indicated in the programme.

Opening Ceremony

Registered participants are invited to attend the Opening Ceremony on 23 August 2019 at 1100hrs in the Ballroom. Then followed by the Opening of Exhibition and refreshment. The Opening Ceremonies will be followed immediately by the Scientific Session.

MEET-THE-MASTER

The welcome dinner will take place on 24 August 2019 at the Grand Ballroom, Level 4 1800hrs. All participants are invited to attend.

GALA Dinner

The Gala Dinner will take place on 24 August 2019 at 1900hrs at the Grand Ballroom, Grand Copthorne Waterfront Hotel. All participants are invited to attend.

PRE / POST - CONGRESS WORKSHOP



PRE-CONGRESS WORKSHOP

21 – 22 AUGUST 2019	21 – 22 AUGUST 2019	22 AUGUST 2019	22 AUGUST 2019	21 AUGUST 2019	22 AUGUST 2019
RHINOLOGY (SGH Academia)	HEAD & NECK (CGH)	PAEDIATRICS (NUH)	ENT (NUH)	SLEEP (SGH Academia)	SLEEP (SGH Academia)
ENDOSCOPIC SINUS & SKULL BASE MASTER COURSE	HEAD & NECK WORKSHOP	MICROTIA & EAR DEFORMITIES WORKSHOP	TRACHEOSTOMY CARE WORKSHOP	ASEAN CONNECTECH FORUM	OSA DIAGNOSTIC WORKSHOP (AM) CPAP WORKSHOP (PM)

POST-CONGRESS WORKSHOP

26 AUGUST – 1 SEPTEMBER 2019	25 – 26 AUGUST 2019	27 – 29 AUGUST 2019	25 – 26 AUGUST 2019
FACIAL PLASTICS (KTPH)	OTOLOGY (CGH)	OTOLOGY (CGH)	SLEEP APNEA SURGERY (SGH Academia)
11 DAYS OF FACIAL PLASTICS SURGERY	ENDOSCOPIC EAR SURGERY WORKSHOP	TEMPORAL BONE & CI WORKSHOP	SLEEP APNEA SURGERY WORKSHOP

PROGRAMME OVERVIEW - DAY 1: FRIDAY, 23 AUGUST 2019

0700 – 0800	REGISTRATION				
0800 – 0830	PLENARY SESSION 1: HEAD & NECK				
0835 – 1005	RHINOLOGY	HEAD & NECK	FACIAL PLASTICS	LARYNGOLOGY	SLEEP
1005 – 1035	TEABREAK / EXHIBITION				
1035 – 1105	PLENARY SESSION 2: LARYNGOLOGY				
1105 – 1150	OPENING ADDRESS & OPENING CEREMONY				
1150 – 1220	LUNCH / EXHIBITION				
1220 – 1300	SPONSORED LUNCH SYMPOSIUM (Sponsored by A. Menarini Asia-Pacific Pte Ltd)				
1300 – 1330	PLENARY SESSION 3: RHINOLOGY				
1335 – 1505	RHINOLOGY	HEAD & NECK	FACIAL PLASTICS	LARYNGOLOGY	SLEEP
1505 – 1535	TEABREAK / EXHIBITION				
1535 – 1605	PLENARY SESSION 4: SLEEP				
1610 – 1740	RHINOLOGY	HEAD & NECK	FACIAL PLASTICS	LARYNGOLOGY	PAEDIATRICS
1740	END OF DAY 1				

E-POSTERS

PROGRAMME OVERVIEW - DAY 2: SATURDAY, 24 AUGUST 2019

0700 – 0730	REGISTRATION					E-POSTERS	
0730 – 0800	SPONSORED BREAKFAST SYMPOSIUM (Sponsored by Smith & Nephew Pte Ltd)						
0800 – 0830	PLENARY SESSION 5: SLEEP						
0835 – 1005	RHINOLOGY	HEAD & NECK	FACIAL PLASTICS	SLEEP	AUDIOLOGY		
1005 – 1035	TEABREAK / EXHIBITION						
1035 – 1105	PLENARY SESSION 6: PAEDIATRICS			AUDIOLOGY			
1110 – 1240	RHINOLOGY	PAEDIATRICS	OTOLOGY	FACIAL PLASTICS	SLEEP		AUDIOLOGY
1240 – 1310	LUNCH / EXHIBITION						
1310 – 1340	SPONSORED LUNCH SYMPOSIUM						
1340 – 1410	PLENARY SESSION 7: OTOLOGY			AUDIOLOGY			
1410 – 1440	TEABREAK / EXHIBITION						
1440 – 1510	PLENARY SESSION 8: FACIAL PLASTICS			AUDIOLOGY			
1515 – 1645	RHINOLOGY	PAEDIATRICS	OTOLOGY	FACIAL PLASTICS	SLEEP		AUDIOLOGY
1645 – 1735	FREE PAPER			AUDIOLOGY			
1800 – 1900	MEET THE MASTER SESSION / WELCOME RECEPTION						
1900 – 2200	GALA DINNER						
2200	END OF DAY 2						

E-POSTERS

PROGRAMME OVERVIEW - DAY 3: SUNDAY, 24 AUGUST 2019

0700 – 0730	REGISTRATION			E-POSTERS
0730 – 0800	TECHNOLOGY SYMPOSIUM			
0800 – 0830	PLENARY SESSION 9: FACIAL PLASTICS			
0835 – 1005	PAEDIATRICS	OTOLOGY	FACIAL PLASTICS	
1005 – 1035	TEABREAK / EXHIBITION			
1035 – 1105	PLENARY SESSION 10: OTOLOGY			
1110 – 1240	PAEDIATRICS	OTOLOGY	FREE PAPER	
1240 – 1320	CLOSING			
1320	END OF DAY 3			

SCIENTIFIC PROGRAMME - DAY 1: FRIDAY, 23 AUGUST 2019

0700 – 0800	REGISTRATION (Grand Ballroom Foyer, Level 4)				
0730 – 0800	BREAKFAST SYMPOSIUM (SPONSORED BY RESMED ASIA PTE LTD) (Grand Ballroom, Level 4)				
0730 – 0800	Utilisation of Telemedicine to Monitor Compliance and Efficacy of PAP Therapy – Big Data Outcomes Mr Brett McLaren, Singapore				
0800 – 0830	PLENARY SESSION 1: HEAD & NECK (Grand Ballroom, Level 4)				
Moderator	A/Prof Thomas Loh				
0800 – 0830	Innovations in Surgical Oncology Prof Jonathan Irish, Canada				
0835 – 1005	RHINOLOGY SCIENTIFIC SESSION 1: RHINOLOGIC ALLERGY – WHAT IS NEW IN 2019 (Cardinal, Level 3) A/Prof Pongsakorn Tantilipikorn / Prof Salina Husain / Dr Gil Vicente	HEAD & NECK SCIENTIFIC SESSION 1: ORAL CAVITY CANCER (ASHNO) (Grand Ballroom, Level 4) Prof Sheng-Po Hao / Prof Eun Chang Choi	FACIAL PLASTICS SCIENTIFIC SESSION 1: ASEAN FPSR SYMPOSIUM – BROW LIFT (Galleria 1, Level 3) Prof Ji Yun Choi / Adj Asst Prof Sandeep Uppal	LARYNGOLOGY SCIENTIFIC SESSION 1: THE INJURED VOICE (Galleria II, Level 3) Dr Shalini D/O Arulanandam / Ms Francoise Lim	SLEEP SCIENTIFIC SESSION 1: ADULT OSA (Paradiso, Level 3) Dr Shaun Loh / Dr Han Hong Juan
0835 – 0850	Endotype-Driven Allergic Rhinitis – The Next Frontier of Treatment? Prof Wang De Yun, Singapore	Survival and Prognosticators Dr Choackhai Methetratrut, Thailand	Surgical Anatomy: Forehead and Brow Dr Tee Sin Lee, Singapore	Voice Rest for The Injured Performer A/Prof Debbie Phyland, Australia	Phenotyping OSA Dr Leow Leong Chai, Singapore
0850 – 0905	Updates on House Dust Mite Allergy – Diagnosis and Treatment Dr Chew Fook Tim, Singapore	Surgical Management of Locally Advanced Oral Tongue SCC Dr Phakdee Sannikorn, Thailand	The Technique and Biomechanics of Brow Lifting Prof Ji Yun Choi, Korea	Managing Voice Dysfunction after Thyroid Surgery A/Prof Daniel Novakovic, Australia	Positive Airway Pressure in OSA: Future Innovations Dr Teofilo Lee-Chiong, USA
0905 – 0920	The Need for Allergen Immunotherapy in Allergic Rhinitis in Bandung Indonesia Prof Teti Madiadiopoera, Indonesia	Can We Spare Mandibulotomy or Mandibulotomy? Prof Shyh-Kuan Tai, Taiwan	Direct Brow Lift Adj Asst Prof Gangadhara Sundar, Singapore	Muscle Tension Dysphonia Dr Paul Mok, Singapore	Weight Management in OSA Dr Lee Phong Ching, Singapore
0920 – 0935	Unmet Needs in AR Management – What the Studies are Telling Us Prof Dr Baharudin Abdullah, Malaysia	Current Trend of Reconstruction of Oral Defect Prof Chung Hwan Baek, Korea	Endoscopic Brow Lift Prof Steve Kao, Taiwan	Singing Voice Therapy A/Prof Debbie Phyland, Australia	Asian Craniofacial Characteristics and PAP Masks : An RCT Trial Dr Ong Thun How, Singapore
0935 – 0950	International Consensus Statement on Allergy and Rhinology: Allergic Rhinitis – Highlights Dr Sarah K Wise, USA	Salvage Surgery for Recurrent Oral SCC Dr Huang Xinyong, Singapore	The Trichophytic Forehead Lift Prof Peter A. Adamson, USA	Assessment and Management of Chronic Cough and Laryngeal Dysfunction Ms Laura Chua, Singapore	Questions and Answers
0950 – 1005	Biologics in Nasal Polyposis – An Update Prof Joe Han, USA	Does the Microbiome Play a Role in Oral Cavity Squamous Cell Carcinoma? Dr Jason Chan, Hong Kong	Rejuvenation of the Eyes and Brows with Botulinum Toxin Prof Joseph Amado Jay Galvez, Philippines	Questions and Answers	
1005 – 1035	TEABREAK / EXHIBITION (Foyer, Level 4)				
1035 – 1105	PLENARY SESSION 2: LARYNGOLOGY (Grand Ballroom, Level 4)				
Moderator	Dr Shalini D/O Arulanandam				
1035 – 1105	Recurrent Respiratory Papillomatosis and The Impact of HPV Vaccine A/Prof Daniel Novakovic, Australia				
1105 – 1150	OPENING CEREMONY (Grand Ballroom, Level 4)				
1150 – 1220	LUNCH / EXHIBITION (Foyer, Level 4)				
1220 – 1300	LUNCH SYMPOSIUM (SPONSORED BY A. MENARINI ASIA-PACIFIC PTE LTD) (Grand Ballroom, Level 4)				
Moderator	Dr Barrie Tan				
1220 – 1240	Allergic Rhinitis: New Challenges, New Choices Dr Goh Yau Hong, Singapore				
1240 – 1300	Managing Difficult Cases of Allergic Rhinitis Dr Marysia Recto, Philippines				
1300 – 1330	PLENARY SESSION 3: RHINOLOGY (Grand Ballroom, Level 4)				
Moderator	Dr Mark Thong				
1300 – 1330	CRS: Emerging Knowledge in Pathophysiology & Treatment Implications A/Prof Alkis Psaltis, Australia				

E-POSTERS

SCIENTIFIC PROGRAMME - DAY 1 (continued)

1335 – 1505	RHINOLOGY SCIENTIFIC SESSION 2: CRS – MEDICAL & SURGICAL UPDATES FOR 2019 (Grand Ballroom, Level 4)	HEAD & NECK SCIENTIFIC SESSION 2: HOW I DO IT SESSION (Cardinal, Level 3)	FACIAL PLASTICS SCIENTIFIC SESSION 2: ASEAN FPRS SYMPOSIUM – BLEPHAROPLASTY I (Galleria I, Level 3)	LARYNGOLOGY SCIENTIFIC SESSION 2: UPDATES IN LARYNGOLOGY (Galleria II, Level 3)	SLEEP SCIENTIFIC SESSION 2: DIAGNOSTICS IN OSA (Paradiso, Level 3)
Moderators	Dr Alex Tham / Dr Fakhrudin Salim / A/Prof Ramiza Ramza Ramli	Prof Chung Hwan Baek / Prof Alfredo Pontejos, Jr	Dr Anjana Haridas / Adj Asst Prof Gangadhara Sundar	Dr Chew Hui Sing	Dr Phua Chu Qin / Dr Lau Hung Tuan
1335 – 1350	Current Concepts in the Medical Management of CRS Prof Maung Maung Khaing, Myanmar	Management of the Facial Nerve in Parotid Cancer Prof Eun Chang Choi, Korea	Anatomy of the Eyelids Dr Anjana Haridas, United Kingdom	Laryngeal Reinnervation Prof Marina Mat Baki, Malaysia	Telemedicine in OSA Dr Teofilo Lee-Chiong, USA
1350 – 1405	Updates in Conventional CRS Management: Medical & Surgical Perspectives from the Region Dr Retno Wardani, Indonesia	Facial Reanimation Using Free Tissue Transfer Prof Wang Cheng Yuan, China	Blepharoplasty: Indications, Techniques and Pitfalls Prof Ozcan Cakmak, Turkey	Laryngeal Amyloidosis and a Review of Treatment Modalities Dr Georgina Harris, Australia	Is In-Laboratory Sleep Study Obsolete? Dr Adeline Tan, Singapore
1405 – 1420	Updates on Long Term Low Dose Macrolides in CRS Dr Kachorn Seresirkachorn, Thailand	Neck Dissection Dr Marlinda Adham, Indonesia	Upper Lid Blepharoplasty for Non-Ophthalmologists Dr Anjana Haridas, United Kingdom	In-Office Procedures in Laryngology A/Prof Daniel Novakovic, Australia	Home Sleep Study Dr Yap Yoke Yeow, Malaysia
1420 – 1435	Central Compartment Atopic Disease Prof John M DelGaudio, USA	Thyroidectomy A/Prof Napadon Tangtiaturonrasme, Thailand	Upper Blepharoplasty Prof Peter A. Adamson, USA	Updates On Management of Vocal Tremor and Spasmodic Dysphonia A/Prof Debbie Phyland, Australia	Peripheral Arterial Tone Technology in OSA Diagnostics Mr Gabi Arad, Israel
1435 – 1450	Recurrent Eosinophilic Nasal Polyposis: What are the Treatment Options? Dr Chao Siew Shuen, Singapore	Submental Island Flap Reconstruction Dr Zhiyu Jia, China	Short Scar Asian Blepharoplasty Dr Cholahdis Sinrachatanant, Thailand	Transnasal Oesophagoscopy Dr David Lau, Singapore	Is There A Role for Pulse Oximetry as Diagnostic Test for OSA Prof Park Chan Soon, Korea
1450 – 1505	Novel Surgical Procedures for Recalcitrant CRS A/Prof Jivianne Lee, USA	Surgical Strategies for Marginal Mandibulectomy and Multiple Concomitant Cancer in Oral Cavity Cancer Dr Kai-Ping Chang, Taiwan	Asian Upper Blepharoplasty: Transcutaneous Approach Adj Asst Prof Gangadhara Sundar, Singapore	Demonstration (TNE Scope & Balloon Dilatation)	Questions and Answers
1505 – 1535	TEABREAK / EXHIBITION (Foyer, Level 4)				
1535 – 1605	PLENARY SESSION 4: SLEEP (Grand Ballroom, Level 4)				
Moderator	A/Prof Toh Song Tar				
1535 – 1605	Economic and Social Costs of Obstructive Sleep Apnea Dr Teofilo Lee-Chiong, USA				
1610 – 1740	RHINOLOGY SCIENTIFIC SESSION 3: ESS & BEYOND – HOW I DO IT (Grand Ballroom, Level 4)	HEAD & NECK SCIENTIFIC SESSION 3: CHANGING TRENDS IN MANAGEMENT OF THYROID NODULES / CANCERS (APTS) (Cardinal, Level 3)	FACIAL PLASTICS SCIENTIFIC SESSION 3: ASEAN FPRS SYMPOSIUM – BLEPHAROPLASTY II (Galleria I, Level 3)	LARYNGOLOGY SCIENTIFIC SESSION 3: HOT TOPICS AND COOL CASES (Galleria II, Level 3)	PAEDIATRICS SCIENTIFIC SESSION 1: PAEDIATRICS OSA I (Paradiso, Level 3)
Moderators	Dr Neville Teo / Dr Deasi Anggraini / Dr Sroy Adollar	Prof Feng-Yu Chiang / Prof Christopher Goh	Prof Peter A. Adamson / Dr Anjana Haridas	Dr Hu Huixin	A/Prof A. Balakrishnan / Dr Victor Abdullah
1610 – 1625	Safe Endoscopic Sinus Surgery with the Microdebrider: The Free Edge Concept A/Prof Siow Jin Keat, Singapore	Global Surgery Framework in the Management of Thyroid Nodules Datuk Dr Noor Hisham Abdullah, Malaysia	Eye Examination for Blepharoplasty Dr Anjana Haridas, United Kingdom	X Men and Fish Mouth: A Cure for Stomal Stenosis Prof Dato Dr Abdullah Sani Mohamed, Malaysia	Paediatrics Guidelines on Screening for OSA Dr Petrina Wong, Singapore
1625 – 1640	Pearls in Endoscopic Management of Intraoperative Bleeding Prof Prepageran Narayanan, Malaysia	Why should a Thyroid Surgeon Know about Molecular Markers in Thyroid Cancer? Dr Lim Chwee Ming, Singapore	Lower Transconjunctival Blepharoplasty with Skin Pinch Prof Peter A. Adamson, USA	Radiation and the Larynx A/Prof Debbie Phyland, Australia	Role of ENT Assessment for OSA Dr Lynn Koh, Singapore
1640 – 1655	Surgical Approaches to the Maxillary Sinus Dr Harvinder Singh, Malaysia	Advances of Neural Monitoring in Thyroidectomy Prof Feng-Yu Chiang, Taiwan	Lower Eyelid Blepharoplasty with Fat Transposition Adj Asst Prof Gangadhara Sundar, Singapore	Adult Airway Stenosis – Updates on Cricotracheal Resection and Repair Dr Ryner Carrillo, Philippines	Orthodontics Treatment for Paediatrics OSA Dr Ng Jing Hao, Singapore
1655 – 1710	Current Surgical Concepts and Techniques in Approaching the Frontal Sinus A/Prof Luan Tran, Vietnam	Parathyroid Localization and Mapping Using Auto Fluorescence Prof Kang-Dae Lee, Korea	My Technique of Lower Blepharoplasty Prof Steve Kao, Taiwan	Case Discussion & Live Patient Demonstration	Myofunctional Therapy in Paediatrics OSA Prof Huang Yu-Shu, Taiwan
1710 – 1725	Evolving Role of the Modified Endoscopic Lothrop in Primary Sinus Surgery A/Prof Kornkiat Snidvongs, Thailand	Remote Access Thyroidectomy: Advances in Transoral Approach Prof Kyung Tae, Korea	Blepharoplasty: How to Avoid Skeletonized Eyes Prof Ozcan Cakmak, Turkey		Questions and Answers
1725 – 1740	Balloon Sinuplasty – Malaysian Experience Datuk Dr Kuljit Singh, Malaysia	Evolution of Philosophy of Central Neck Dissection in Papillary Thyroid Cancer Dr Lim Ming Yann, Singapore	Techniques for Prevention and Treatment of Complications in Upper and Lower Lid Blepharoplasty Adj Asst Prof Gangadhara Sundar, Singapore		
1740	END OF DAY 1				
1800 – 1900					SINGAPORE SLEEP SOCIETY AGM 2019 (Paradiso, Level 3)

E-POSTERS

E-POSTERS

SCIENTIFIC PROGRAMME - DAY 2: SATURDAY, 24 AUGUST 2019

0700 – 0800	REGISTRATION (Grand Ballroom Foyer, Level 4)					
0730 – 0800	BREAKFAST SYMPOSIUM (SPONSORED BY SMITH & NEPHEW PTE LTD) (Grand Ballroom, Level 4)					
Moderator	Prof Dr Baharudin Abdullah					
0730 – 0750	Role of COBLATION™ in Sinonasal Procedures Dr Yap Yoke Yeow, Malaysia					
0750 – 0800	Questions and Answers					
0800 – 0830	PLENARY SESSION 5: SLEEP (Grand Ballroom, Level 4)					
Moderator	Dr Chong Khai Beng					
0800 – 0830	Targeting Treatment According to OSA Phenotype Prof Claudio Vicini, Italy					
0835 – 1005	RHINOLOGY SCIENTIFIC SESSION 4: FUNGAL DISEASES, TUMORS & CSF LEAKS (Grand Ballroom, Level 4)	HEAD & NECK SCIENTIFIC SESSION 4: MINIMALLY INVASIVE HEAD AND NECK SURGERY (Cardinal, Level 3)	ASEAN & KOREAN ORL- HNS COLLABORATION SYMPOSIUM (OTOLOGY) (Galleria II, Level 3)	FACIAL PLASTICS SCIENTIFIC SESSION 4: JOINT ASEAN FPRS & PAAFPRS SYMPOSIUM – FACE LIFT AND OTOPLASTY (Galleria I, Level 3)	SLEEP SCIENTIFIC SESSION 3: OSA OVERVIEW & ASSESSMENT (Paradiso, Level 3)	AUDIOLOGY SCIENTIFIC SESSION 1: ADULT VESTIBULAR DIAGNOSTICS AND REHABILITATION (Canary, Level 4)
Moderators	Dr Rusdian Utama Roelani / Dr Leong Jern-Lin	A/Prof Thomas Loh / Dr Constance Teo	Dr Barrie Tan	Prof Ozcan Cakmak / Prof Steve Kao	Dr Goh Yau Hong / Dr Alvin Tan	Mr Ho Sen Kee / Ms Wong Yuhuan
0835 – 0850	A Comprehensive Approach to the Treatment of Inverting Papilloma Dr Gil Vicente, Philippines	Setting Up of Endonasal Skull Base Programme Dr Ong Yew Kwang, Singapore	Long Term Hearing Outcome of Cochlear Implant in Retrocochlear Lesion Prof Ja-Won Koo, Korea	Facelift: Surgical Anatomy Asst Adj Prof Sandeep Uppal, Singapore	Management of OSA – Overview Prof Sung Wan Kim, Korea	Evidence-Based Vestibular Rehabilitation for Vestibular Neuritis, Vestibular Migraine and Meniere's Disease A/Prof Wee Seng Kwee, Singapore
0850 – 0905	Updates on Fungal Sinusitis Management A/Prof Greg Davis, USA	Nasopharyngectomy – Endoscopic vs Open Prof Sheng-Po Hao, Taiwan	Infratemporal Fossa Approach for Jugular Foramen Tumors Dr Yang-Sun Cho, Korea	Facelift vs Midfacelift: Which Technique for Which Patient Prof Ozcan Cakmak, Turkey	Pathophysiology of OSA and Surgical Implications A/Prof Shintaro Chiba, Japan	Current Updates on Vestibular Implants and What Does the Future Hold for Patients? Prof Herman Kingma, Netherlands
0905 – 0920	Clinical Approach to Diagnosing CSF Leaks for the Rhinologist Dr Budi Sutikno, Indonesia	Transoral Laser Resection of Early Glottic Cancer Prof Carsten Palme, Australia	Predictive Factors for Postoperative Facial Palsy after Translabyrinthine Approach of Vestibular Schwannomas Dr Yang-Sun Cho, Korea	The Graduated Face and Neck Lift Prof Peter A. Adamson, USA	Upper Airway Assessment in The Office Dr Yap Yoke Yeow, Malaysia	Gathering Good Patient History and Conducting Bedside Vestibular Assessments Dr Ho Eu Chin, Singapore
0920 – 0935	Surgical Concepts in Endoscopic CSF Leak Repair Prof Peter Hwang, USA	HPV Vaccination in Head and Neck Malignancies Dr Avatar Singh, Malaysia	Measuring Horizontal Ocular Deviation on MRI Imaging in Acute Vertigo Patients and Its Clinical Implications Prof Jae Yun Jung, Korea	Contemporary Deep Plane Facelift Prof Ji Yun Choi, Korea	DISE – Current Use and Future Applications Prof Claudio Vicini, Italy	Singapore's Vestibular Clinic Model and the Role of an Audiologist in Vestibular Management Dr Ho Eu Chin, Singapore
0935 – 0950	Current Management of Inverting Papilloma A/Prof Jivianne Lee, USA	Swallowing Outcomes Following TORS for Oropharyngeal Cancer Dr Harold Heah, Singapore	Middle Ear Surgeries for Better Hearing Outcomes: How I Do It Prof Shi Nae Park, Korea	Deep / Composite Facelift: Why and How Prof Ozcan Cakmak, Turkey	Predictors of Surgical Success and Multilevel Surgery Prof Hsin-Ching Lin, Taiwan	Effect of Superior Semicircular Canal Dehiscence on Neural Responses to Sound and Vibration, and How It Changes Vestibular Labyrinth Operation Prof Ian Curthoys, Australia
0950 – 1005	Approaching Sinonasal Malignancies – Choosing the Best Modality for Optimal Outcomes Dr Eric W. Wang, USA	Endoscopic Transoral Thyroidectomy Dr Tay Hin Ngan, Singapore	Questions and Answers	Otoplasty Prof Hermann Raunig, Austria	Questions and Answers	vHIT – SHIMPs and New Developments Prof Ian Curthoys, Australia
1005 – 1035	TEABREAK / EXHIBITION (Foyer, Level 4)					

E-POSTERS

SCIENTIFIC PROGRAMME - DAY 2 (continued)

1035 – 1105	PLENARY SESSION 6: PAEDIATRICS (Grand Ballroom, Level 4)			1035 – 1105	AUDIOLOGY SCIENTIFIC SESSION 2: TELE-AUDIOLOGY (Canary, Level 4)	
Moderator	A/Prof Loh Woei Shyang			Moderators	Ms Wong Yuhuan / Ms Grace Chao	
1035 – 1105	Paediatrics OSA Update 2018 / Innovations to Improve Outcomes of Paediatrics OSA Surgery Prof Stacey Ishman, USA			1035 – 1050	Serving Remote Communities and Telemedicine in Audiology – Part 1 Dr Chris Brennan-Jones, Australia	
				1050 – 1105	Serving Remote Communities and Telemedicine in Audiology – Part 2 Dr Chris Brennan-Jones, Australia	
1110 – 1240	RHINOLOGY SCIENTIFIC SESSION 5: ENDOSCOPIC SKULL BASE SURGERY – WHERE ARE WE IN 2019? (Cardinal, Level 3)	PAEDIATRICS SCIENTIFIC SESSION 2: PAEDIATRICS OSA II (Grand Ballroom, Level 4)	OTOLOGY SCIENTIFIC SESSION 1: FRONTIERS IN CHRONIC EAR SURGERY (Galleria II, Level 3)	FACIAL PLASTICS SCIENTIFIC SESSION 5: JOINT ASEAN FPBS & PAAPRS SYMPOSIUM – FACIAL REJUVENATION (Galleria I, Level 3)	SLEEP SCIENTIFIC SESSION 4: OSA SURGERY (Paradiso, Level 3)	AUDIOLOGY SCIENTIFIC SESSION 3: PUBLIC HEALTH AND PAEDIATRIC (Canary, Level 4)
Moderators	Dr Ong Yew Kwang / Dr Kent Lam	Dr Shifa Zulkifli	Dr Vanessa Tan / Prof Goh Bee See	Prof Joseph Amado Jay Galvez / Dr Valerie Tay	Prof Chae-Seo Rhee / Prof Hsu Pon Poh / Dr Alvin Tan	Ms Leem Pei Shan / Ms Melissa Tan
1110 – 1125	Pushing the Boundaries of Endoscopic Skull Base Surgery: Current Concepts and New Frontiers for the Next Decade Prof Arturo Solares, USA	Building a Pediatric OSA Practice – Thailand's Perspective Dr Archwin Tanphaichitr, Thailand	DISTINGUISHED SPEAKER LECTURE Common Myths in Chronic Suppurative Otitis Media / Middle Ear and Mastoid Dysventilation Dr Michael Gluth, USA	Essential Anatomy for Midface Rejuvenation and Volume Restoration Prof Hyoung Jin Moon, Korea	Nasal Surgery – Why and Surgical Techniques Prof Park Chan Soon, Korea	The Silver Tsunami: A National Response to Unaddressed Hearing Loss in Singapore Seniors – Part 1 Prof William Hal Martin, Singapore
1125 – 1140	Endoscopic Endonasal Approach to Suprasellar Lesions Dr Peter Jarin, Philippines	Sleep Endoscopy Update Prof Stacey Ishman, USA		Current Concepts in HA Filler Injections: Contouring and Volume Restoration Prof Joseph Amado Jay Galvez, Philippines	Palatal Surgery – From Ablation to Reconstruction Prof Hsueh-Yu Li, Taiwan	The Silver Tsunami: A National Response to Unaddressed Hearing Loss in Singapore Seniors – Part 2 Prof William Hal Martin, Singapore
1140 – 1155	Endoscopic Multiportal Approaches to ITF/Parapharyngeal Space: Tips & Pearls Dr Pornthep Kasemsiri, Thailand	Anesthesia Considerations in Sleep Endoscopy Dr Neo Hong Jye, Singapore	Transcanal Endoscopic Management of Attic Retraction Pockets A/Prof Tran Phan Chung Thuy, Vietnam	Nose Augmentation with Fillers and Threads Dr Felix Li, Singapore	Tongue Base Surgery – Volumetric Reduction and Tension Prof Hsin-Ching Lin, Taiwan	Central Auditory Processing Disorder (CAPD): A Clinical Overview and Update on the Diagnosis and Intervention Dr Jenny Loo, Singapore
1155 – 1210	Endoscopic Transpterygoid Nasopharyngectomy for Recurrent NPC: Surgical Tips & Challenges Prof Tang Ing Ping, Malaysia	Shared Decision Making Tool for Paediatrics OSA Management Prof Stacey Ishman, USA	Endoscopic Ear Surgery: Endoscopic Onlay Myringoplasty; Surgical and Functional Outcomes Dr Philip Rajan, Malaysia	Periorbital Rejuvenation Using Multiple Non-Surgical Modalities Dr Ngiam Juzheng, Singapore	Skeletal Surgery – Genioplasty and MMA: Aesthetic, Airway, Angles' Consideration Dr Clement CH Lin, Taiwan	CI for Paediatric SSD, Current Trends and Evidence Dr Dayse Tavora, Australia
1210 – 1225	Endoscopic Transorbital Surgery Prof John M DeGaudio, USA	Why is it Important to Treat OSA in Childhood? Prof Wei-Chung Hsu, Taiwan	Endoscopic Ear Surgery: Early Results Dr Tengku Izam, Malaysia	Prevention and Management of Filler Complications Dr David Loh, Singapore	Paediatric OSA Surgery: T & A and Beyond Dr Victor Abdullah, Hong Kong	
1225 – 1240	Skull Base Reconstruction – Beyond the Nasoseptal Flap Dr Zara M Patel, USA	Tonsillotomy Versus Tonsillectomy. Our Experience A/Prof Loh Woei Shyang, Singapore	Pathogenesis and Treatment of Chronic Suppurative Otitis Media: Has It Changed? Dr Lina Lasminingrum, Indonesia	Correction Lagophthalmos in Facial Palsy Dr Atul Shah, India	New Surgical Outcomes for OSA Dr Kenny Pang, Singapore	Using AVT for Best Outcomes in Teaching Children with Hearing Loss to Listen and Talk Ms Olivia Wee, Singapore
1240 – 1310	LUNCH / EXHIBITION (Foyer, Level 4)					
1310 – 1340	LUNCH SYMPOSIUM (SPONSORED BY ADVANCED BIONICS) (Grand Ballroom, Level 4)					
Moderator	Mr Sunil Kapoor					
1310 – 1340	Powerful Connections – Advanced Bionics New Product Update Dr Barrie Tan, Singapore					

SCIENTIFIC PROGRAMME - DAY 2 (continued)

1340 – 1410	PLENARY SESSION 7: OTOTOLOGY (Grand Ballroom, Level 4)			1340 – 1410	AUDIOLOGY SCIENTIFIC SESSION 4: PUBLIC HEALTH AND PAEDIATRIC (Canary, Level 4)		
Moderators	Dr Barrie Tan / Prof Dato Dr Lokman Saim			Moderators	Ms Leem Pei Shan / Ms Melissa Tan		
1340 – 1410	Beating the Eardrum – An Australian Story of Innovation Prof Marcus Atlas, Australia			1340 – 1355	Services to Facilitate Effective Speech and Spoken Language Development in Children with Hearing Loss Ms Nikita Kamdar, Singapore		
				1355 – 1410	Establishing Cochlear Implant Programme in a Rural Setting Dr Low Wong Kein, Singapore		
1410 – 1440	TEABREAK / EXHIBITION (Foyer, Level 4)						
1440 – 1510	PLENARY SESSION 8: FACIAL PLASTICS (Grand Ballroom, Level 4)			1440 – 1510	AUDIOLOGY SCIENTIFIC SESSION 5: PAEDIATRIC VESTIBULAR (Canary, Level 4)		
Moderator	Adj Asst Prof Sandeep Uppal			Moderator	Mr Ho Sen Kee		
1440 – 1510	The Science of Beauty: Honing the Eyes and Mind Prof Peter A. Adamson, USA			1440 – 1510	How to Conduct Paediatric Vestibular Assessment Efficiently and Effectively Ms Donella Chisari, Australia		
1515 – 1645	RHINOLOGY SCIENTIFIC SESSION 6: ROUNDTABLE CHALLENGING CASE DISCUSSION WITH THE EXPERTS – LESSONS LEARNT (Cardinal, Level 3)	PAEDIATRICS SCIENTIFIC SESSION 3: PAEDIATRICS OSA III (Galleria I, Level 3)	OTOLOGY SCIENTIFIC SESSION 2: OTOTOLOGY IN THE REGION (Galleria II, Level 3)	FACIAL PLASTICS SCIENTIFIC SESSION 6: JOINT ASEAN FPHS & PAMFPRS SYMPOSIUM – RHINOPLASTY I (Grand Ballroom, Level 4)	SLEEP SCIENTIFIC SESSION 5: OSA NON-SURGICAL THERAPY (Paradiso, Level 3)	AUDIOLOGY SCIENTIFIC SESSION 6: HEARING LOSS, TINNITUS AND THE BRAIN (Canary, Level 4)	E-POSTERS
Moderators	Prof Peter Hwang / Dr Soma Subramaniam	Dr Lynn Koh	Dr Amanda Cheang / Dr Harim Priyono	Prof Hesham Saleh / Prof Chih-wen Twu	Dr Ignatius Mark / Dr Chong Yawkhian	Ms Soo Ying Pei / Mr Gopal Krishna	
1515 – 1530	PANEL 1: CHALLENGING DIAGNOSIS & TREATMENT Case Presentations by: A/Prof Narinder Singh, Australia	Is Overnight Cont SaO2 Monitor a Surrogate For Sleep Study? Dr Michael Lim, Singapore	Cochlear Implant Programme in Myanmar Prof Soe Tin, Myanmar	Functional Evaluation of Rhinoplasty Patient Dr Edward Zhang, Singapore	Use and Limitation of CPAP Therapy A/Prof Wish Banhiran, Thailand	Hearing Loss and Cognitive Screening in the Elderly – A Local Context Ms Magdalene Lim, Singapore	
1530 – 1545	Prof Peter Hwang, USA Mr Samuel Leong, UK Dr Zara M Patel, USA	Management of AR in Paediatric SDB Prof Goh Bee See, Malaysia	Enhancing Audiological Services in ASEAN Countries Prof Dato Dr Lokman Saim, Malaysia	Functional Rhinoplasty Dr Valerie Tay, Singapore	Oral Appliance: Primary and Combined Treatment Dr Ng Jing Hao, Singapore	Dichotic Listening in Elderly and Its Relationship Between Auditory and Cognitive Abilities Dr Gary Lee & Dr Rebecca Heywood, Singapore	
1545 – 1600		Beyond T and A (Tongue Base, Hypoglossal Nerve Stimulation, Hyoid Suspension) Prof Stacey Ishman, USA	Cochlear Implantation in the Philippines Dr Charlotte Chiong, Philippines	Rhinoplasty in Severely Traumatized Nose Prof Ria Trimartani, Indonesia	Use of Positional Therapy as Single and Combined Modality Dr Chua Ai Ping, Singapore	Hearing Loss after a Stroke A/Prof Raymond Seet & Ms Angeline Teo, Singapore	
Moderators	A/Prof Alkis Psaltis / A/Prof Siow Jin Keat						
1600 – 1615	PANEL 2: MANAGING CHALLENGING COMPLICATIONS Case Presentations by: A/Prof Siow Jin Keat, Singapore	ENT Perspective of OSA in Children – Our Experience in Singapore Dr Chan Ching Yee, Singapore	Dilemma in Implanting Cases with Hypoplastic Nerve Prof Goh Bee See, Malaysia	Nasal Hump and Ptotic Tip Prof Sameer Ali Bafaqeh, Saudi Arabia	Hypoglossal Nerve Stimulation for OSA Dr Terry Tan, Singapore	Medical Treatment Versus Management in The Tinnitus Patient – Part 1 Dr Jennifer Martin, Singapore	
1615 – 1630	A/Prof Greg Davis, USA Dr Eric W. Wang, USA Prof John M. DeGaudio, USA	Future of Paediatrics OSA Prof Stacey Ishman, USA	The Endoscopic Ear Surgery on Congenital Cholesteatoma Prof Soekirman Soekin, Indonesia	Revision and Secondary Rhinoplasty: Step by Step Approach Prof Hesham Saleh, United Kingdom	Myofunctional Therapy Dr Phua Chu Qin, Singapore	Medical Treatment Versus Management in The Tinnitus Patient – Part 2 Dr Jennifer Martin, Singapore	
1630 – 1645		Questions and Answers	Bone Conduction Hearing Implant: Bonebridge Prof Tang Ing Ping, Malaysia	Secondary Cleft Lip Rhinoplasty: How I Do It Dr Eduardo Yap, Philippines	Questions and Answers	Non-Otologic Medical Conditions Affecting Tinnitus Severity Prof William Hal Martin, Singapore	

SCIENTIFIC PROGRAMME - DAY 2 (continued)

1645 – 1735	FREE PAPER I: HEAD & NECK (Galleria 1, Level 3)	FREE PAPER II: FACIAL PLASTICS & LARYNGOLOGY (Cardinal, Level 3)	FREE PAPER III: PAEDIATRICS & SLEEP (Paradiso, Level 3)	1645 – 1730	AUDIOLOGY SCIENTIFIC SESSION 7: COMPLEX CASE DISCUSSION (Canary, Level 4)
Moderators	Dr Lim Ming Yann / Dr Siti Radhiah Sudirman	Dr Edward Zhang / Dr Hu Huixin	Dr Lynn Koh / Dr Soon Sue Rene	Moderators	Prof William Hal Martin / Dr Jennifer Martin
1645 – 1652	Head and Neck Oncology Linked to Poor Oral Health? A Systematic Review of the Evidence in the 21st Century Dr Teng Ker Sheng, Singapore	Arytenoid Vertical Height Discrepancy in Predicting Outcomes after Unilateral Vocal Cord Medialisation Dr Eugene Wong, Australia	Tongue Base Reduction in Children with Refractory Obstructive Sleep Apnoea: The Perth Children's Hospital Experience Dr Emily Zhen, Australia	1645 – 1730	Complex Case Presentations and Open Discussion of Management Strategies Prof William Hal Martin, Singapore
1652 – 1659	Head and Neck Schwannomas at Tertiary Care Hospital and Systematic Review of Literature Dr Sushmitha Kabekkodu, India	Narrow Band Imaging in the Histopathological Diagnosis of Laryngeal Lesions Dr Joyce Ho, Australia	Evaluation of Prefabricated Adjustable Thermoplastic Mandibular Advancement Devices(PAT-MADS) as an Adjunct for the Treatment of Obstructive Sleep Apnoea (OSA) Dr Leonard Soh, Singapore		
1659 – 1706	Juvenile Nasopharyngeal Angiofibroma in West Java Indonesia Dr Yussy Afriani Dewi, Indonesia	Hyaluronic Acid Injection Laryngoplasty for Muscle Tension Dysphonia: Preliminary Results Dr Nguyen Duy Duong, Australia	Drug Induced Sleep Endoscopy: Is There a Difference in the Degree of Collapsibility at Different Sedation Levels? Dr Leow Yao Guang, Singapore		
1706 – 1713	How Accurate is Cytology in Excluding Malignancy in Thyroid Nodules 4cm or More? Dr Stephanie Yeap, Singapore	Treatment Outcomes of Patients with Laryngotracheal Stenosis: A 6-Year Experience in a Tertiary Hospital in the Philippines Dr Abigail Sarmiento, Philippines	Efficacy of Nasoalveolar Molding and Nasal Conformers as an Adjunct to Achieve Nasal Symmetry in Unilateral Cleft Lip Dr Aishwarya Ullal, India		
1713 – 1720	Time Based Protocols of Tracheostomy Changes in Long Term Tracheostomised Patients are not Indicated Dr Dulitha Kumarasinghe, Australia	Surgical Management of Nasofrontal Angle in Rhinoplasty Prof Sameer Ali Bafaqeeh, Saudi Arabia	Endoscopic Ear Surgery for Paediatric Middle Ear Congenital Cholesteatoma Dr The Anh Bui, Vietnam		
1720 – 1727	Comparison of Outcomes of Intraoperative Neuromonitoring of Recurrent Laryngeal Nerve versus Visualisation Alone during Thyroidectomies: A Singapore Experience Dr Leow Yao Guang, Singapore	Facial Profile of Filipino Young Adults Using Manual Anthropometry Dr Lemuel Ian Guevara, Philippines	A Systematic Review of Diagnosis and Management of Type 1 Laryngeal Cleft Dr Anna Megow, Australia		
1727 – 1734	Narrow Band Imaging in the Detection of Oral and Oropharyngeal Malignant Lesions: A Systematic Review and Meta-Analysis Dr Eugene Wong, Australia	Modified Ala-Sill Excisional Technique Dr Paula Sigma Javier, Philippines	Routine Use of Tranexamic Acid in Management of Secondary Post-Tonsillectomy Bleeding - Does It Make a Difference? Dr Emily Zhen, Australia	1730 – 1740	AUDIOLOGY TRACK BEST POSTER PRIZE PRESENTATION (Canary, Level 4)
1800 – 1900	MEET THE MASTER SESSION / WELCOME RECEPTION (Grand Ballroom Foyer, Level 4)				
1900 – 2200	GALA DINNER (Grand Ballroom, Level 4)				
2200	END OF DAY 2				

E-POSTERS

SCIENTIFIC PROGRAMME - DAY 3: SUNDAY, 25 AUGUST 2019

0700 – 0800	REGISTRATION (Grand Ballroom Foyer, Level 4)		
0745 – 0800	TECHNOLOGY SYMPOSIUM (SPONSORED BY OLYMPUS SINGAPORE PTE LTD) (Grand Ballroom, Level 4)		
0745 – 0800	Ergonomic Advantage of Newly-Developed Pistol Grip Rhino-Laryngo Videoscope Prof Koichiro Saito, Japan		
0800 – 0830	PLENARY SESSION 9: FACIAL PLASTICS (Grand Ballroom, Level 4)		
Moderator	Adj Asst Prof Sandeep Uppal		
0800 – 0830	My Rhinoplasty Journey Prof Yong Ju Jang, Korea		
0835 – 1005	PAEDIATRICS SCIENTIFIC SESSION 4: MANAGEMENT OF MICROTIA (Galleria L, Level 3)	OTOLOGY SCIENTIFIC SESSION 3: HEARING IMPLANTS (Galleria H, Level 3)	FACIAL PLASTICS SCIENTIFIC SESSION 7: ASEAN FPBS SYMPOSIUM – RHINOPLASTY II (Grand Ballroom, Level 4)
Moderators	Dr Dini Widiarni Widodo	Dr David Low / Prof Helmi Balfas	Prof Gordon Soo / Dr Chak Yuen Fung
0835 – 0850	Brent versus Nagata Method of Auricular Reconstruction Dr Dennis Chua, Singapore	DISTINGUISHED SPEAKER LECTURE New Frontiers in Otoprotection and Repair / Regeneration Dr Pete Weber, USA	The Oriental Nose: A Surgical Challenge Adj Asst Prof Ian Loh, Singapore
0850 – 0905	Difficulty in Management of Bilateral Microtia Dr Dini Widiarni Widodo, Indonesia	New Frontiers in Cochlear Implantation – Intracochlear and Cerebellopontine Angle Schwannoma Removal and Simultaneous CI Dr Jafri Kuthubutheen, Australia	Tips on the Asian Tip Prof Gordon Soo, Hong Kong
0905 – 0920	Challenges in Auricular Reconstruction Dr Ng Li Shia, Singapore		Diagnosis and Treatment of Base Deformities in Asian: How I Do It Prof Ji Yun Choi, Korea
0920 – 0935	Microtia Practice, Tips, and Avoiding Pitfalls Dr Dhavet Setabutr, Thailand	Cochlear Implants: Endoscopic Assisted Cochlear Implantation; Personal Experience and Literature Review Dr Philip Rajan, Malaysia	Camouflage Techniques in Rhinoplasty Prof Hesham Saleh, United Kingdom
0935 – 0950	Timing of Hearing Rehabilitation in Microtia A/Prof Loh Woei Shyang, Singapore	Auditory Brainstem Implantation in Malaysia Prof Tang Ing Ping, Malaysia	Avoiding and Managing Complications in Rhinoplasty Prof Chih-wen Twu, Taiwan
0950 – 1005	Questions and Answers	Cochlear Implant in Difficult Mastoid Prof Helmi Balfas, Indonesia	Questions and Answers
1005 – 1035	TEABREAK / EXHIBITION (Foyer, Level 4)		
1035 – 1105	PLENARY SESSION 10: OTOLOGY (Grand Ballroom, Level 4)		
Moderators	Dr Yuen Heng Wai / Dr Charlotte Chiong		
1035 – 1105	What Really Matters in Cochlear Implant Hearing Preservation Surgery? Dr Elizabeth Toh, USA		

SCIENTIFIC PROGRAMME - DAY 3 (continued)

1110 – 1240	PAEDIATRICS SCIENTIFIC SESSION 5: PAEDIATRICS AIRWAY AND ASPIRATION MANAGEMENT (Galleria I, Level 3)	OTOLOGY SCIENTIFIC SESSION 4: NEUROTOLOGY AND LATERAL SKULL BASE (Grand Ballroom, Level 4)	1110 – 1240	FREE PAPER IV: OTOLOGY & RHINOLOGY (Galleria II, Level 3)
Moderators	Dr Chan Ching Yee	A/Prof Tran Phan Chung Thuy / Dr Annabelle Leong	Moderators	Dr Anna Mallasari Kusuma Dewi / Dr Rebecca Heywood
1110 – 1125	FEES, VFS, Clinical Assessment Ms Jocelyn Tan, Singapore	Spontaneous CSF Otorrhea – An Emerging Entity Dr Jafri Kuthubutheen, Australia	1110 – 1117	The Role of Dynamic Visual Acuity Test for Assessing Balance Disorder in Tuberculosis Patients Following Streptomycin Therapy Prof Jenny Bashiruddin, Indonesia
			1117 – 1124	A Radiological Study Assessing the Prevalence of Frontal Recess Cells and the Most Common Frontal Sinus Drainage Pathways Dr Hong Ngoc Ngo, Vietnam
1125 – 1140	Management of Paediatrics Aspiration Dr Tay Sok Yan, Singapore	Idiopathic Downbeat Nystagmus, A Rare Clinical Entity Dr Philip Rajan, Malaysia	1124 – 1131	The Effect of 1.25 Dihydroxyvitamin D3 Towards IL-12, IL-10 and TGF- β in Allergic Rhinitis patient with Subcutaneous Immunotherapy Dr Melati Sudiro, Indonesia
			1131 – 1138	Changes in Mucociliary Clearance and Olfaction Following Endoscopic Sinus Surgery Prof Regi Kuriën, India
1140 – 1155	Exercise Induced Laryngeal Obstruction (EILO) Dr David Lau, Singapore	Dilemma in Managing Temporal Bone Carcinoma Prof Tang Ing Ping, Malaysia	1138 – 1145	Amoxicillin/Clavulanate Tablet (625mg) Plus Amoxicillin Capsule (500mg) is Not Inferior To Amoxicillin/Clavulanate Tablet (1000mg) Dr Atitaya Chimchua, Thailand
			1145 – 1152	Laryngopharyngeal Reflux as an Associated Factor in Chronic Rhinosinusitis Dr Sinta Sari Ratunanda, Indonesia
1155 – 1210	Updates on Recurrent Respiratory Papillomatosis Dr Chan Ching Yee, Singapore	Endoscopic Assisted Lateral Skull Base Surgery Prof Daniele Marchioni	1152 – 1159	Eosinophilic Otitis Media vs Otitis Media with EGRA Dr Atsushi Fukuda, Japan
			1159 – 1206	Is CT Necessary for Imaging Pediatric Congenital Sensorineural Hearing Loss? Dr Katherine Pollaers, Australia
1210 – 1225	Management of Airway Stenosis in Children Dr Tay Sok Yan, Singapore	Vestibular Schwannoma Surveillance Imaging Dr Elizabeth Toh, USA	1206 – 1213	Association Between Hearing Loss and Cognitive Function in an Ageing Ethnic Chinese Singaporean Population Dr Rebecca Heywood, Singapore
			1213 – 1220	Round Window Bilateral Simultaneous Cochlear Implantation in Children Under 12 Months of Age – Surgical Outcomes and Considerations Dr Allison Reid, Australia
1225 – 1240	Questions and Answers	Preventing CSF Leaks After Lateral Skull Base Surgery Dr Yuen Heng Wai / Dr David Low, Singapore	1220 – 1227	Trigona Honey in Allergic Rhinitis Patients: Its Effectiveness as an Adjunct Therapy Dr Norasnieda Md Shukri, Malaysia
			1227 – 1234	Effect of Round Window Opening Size on Residual Hearing Preservation in Cochlear Implantation Dr Giselle Gotamco, Philippines
1240 – 1320	CLOSING CEREMONY (Grand Ballroom, Level 4)			
1240 – 1245	Closing Speech Dr Barrie Tan, President, 18 th ASEAN ORL-HNS Congress			
1245 – 1300	Oral & Poster Prize Presentation			
1300 – 1320	19 th ASEAN ORL-HNS Congress Handover			
1320	END OF DAY 3			

LIST OF EXHIBITORS

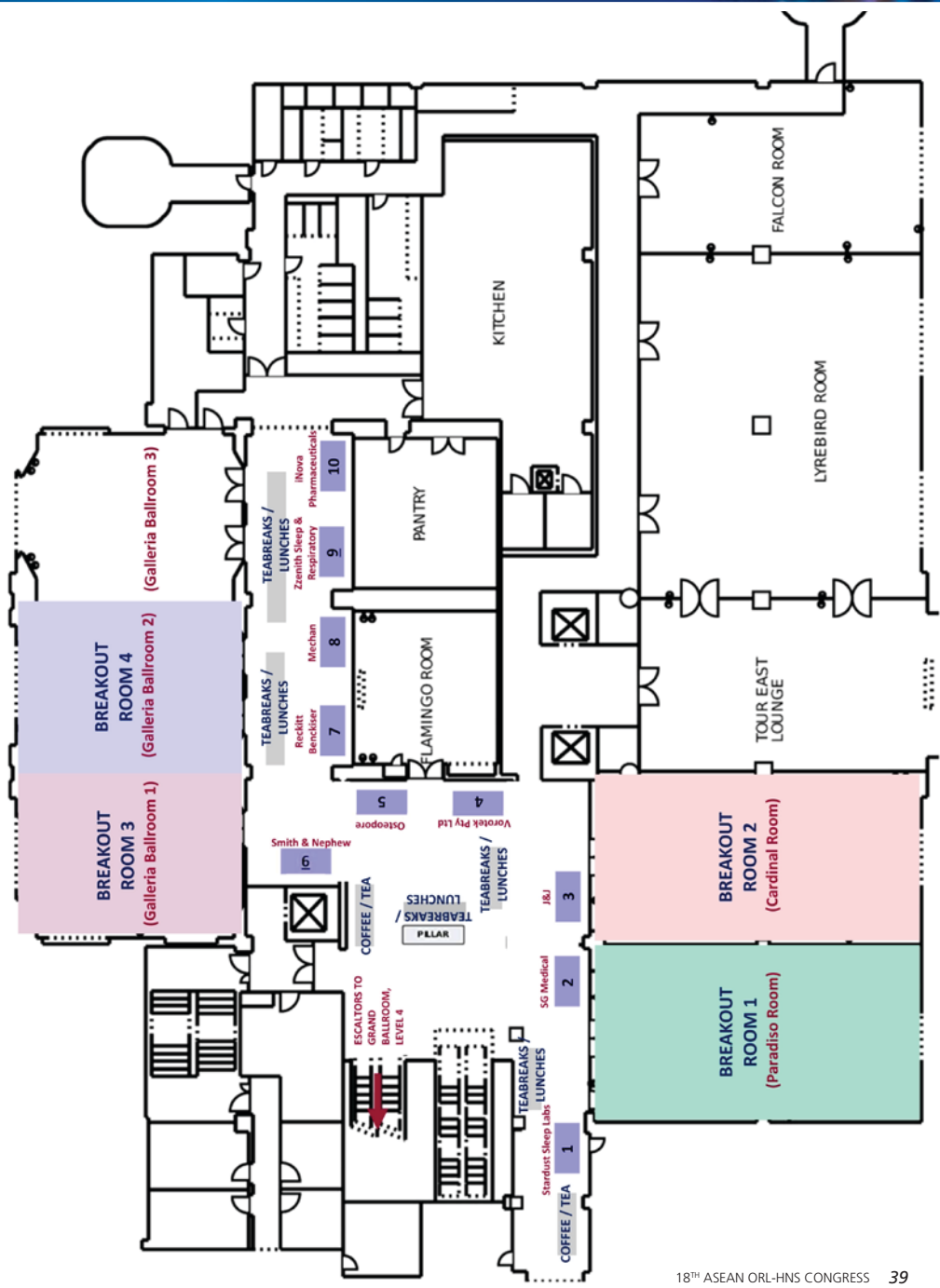
LEVEL 4

Company	Booth Number
A. Menarini Asia-Pacific Pte Ltd	16
Advanced Bionics	6
Carl Zeiss Pte Ltd	11
Cochlear Limited	8
GN Hearing Pte Ltd	7
KARL STORZ Endoscopy Asia Marketing Pte Ltd	5
Medel Pte Ltd	4
Medtronic International Ltd	17 - 18
Olympus Singapore Pte Ltd	15
Oticon Singapore Pte Ltd	12 - 13
Pentax Medical	1
Philips Healthcare	14
Sanofi-Aventis Singapore Pte Ltd	2
SurgiPro Pte Ltd	9 - 10
Ziwell Medical (S) Pte Ltd	3

LEVEL 3

Company	Booth Number
Chengdu Mechan Electronic Technology Co. Ltd	8
Vorotek Pty Ltd	4
iNova Pharmaceuticals (Singapore) Pte Ltd	10
Johnson & Johnson Pte Ltd	3
Osteopore International Pte Ltd	5
Reckitt Benckiser (Singapore) Pte Ltd	7
SG Medical Pte Ltd	2
Smith & Nephew Pte Ltd	6
Stardust Sleep Labs	1
Zzenith Sleep & Respiratory, Medical & Nursing Services Pte Ltd	9

EXHIBITION FLOOR PLAN - LEVEL 3



EXHIBITION FLOOR PLAN - LEVEL 4



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ABSTRACTS – ORAL

FP1_01

Head and Neck Oncology Linked to Poor Oral Health? A Systematic Review of the Evidence in the 21st Century

TENG Ker Sheng [1]; John LOH Ser Pheng [2]

1 - Dental Officer, National Dental Centre, Singapore

2 - Consultant, Discipline of Oral & Maxillofacial Surgery, National University Centre for Oral Health, Singapore

OBJECTIVES

The link between chronic inflammation and oral cancer is well known. Periodontal disease is a common chronic inflammatory disease in the head and neck. Recently, several studies have indicated significant association of periodontal disease with oral cancer. This review aims to evaluate current evidence for the role of periodontal disease in carcinogenesis.

MATERIALS AND METHODS

A systematic search was carried out on PubMed and Embase using the PRISMA 2009 systematic review guidelines. Keywords included: chemokines, periodontal disease, periodontitis, oral cancer, oral carcinoma. The search generated 61 papers. Additional 14 manuscripts were hand-searched following references from these manuscripts. Manuscripts were selected for full-text reading based on predetermined criteria. Articles included were published in English between 2000 and 2019, including reviews, prospective and retrospective studies, and original papers. Articles not in English, published prior to 2000, animal studies, or retracted, as well as articles not related to cancer, were excluded.

RESULTS

After reviewing 75 abstracts, a total of 18 manuscripts were selected and reviewed. Evidence suggests that mutual interaction between host cells and oral microbiota in chronic periodontitis provides a micro-environment promoting carcinogenesis. Strong association between the poor oral health and oral cancer was indicated, but the mechanisms explaining this link requires prospective research.

CONCLUSION

There is a clearly increased risk of oral cancer in patients with periodontal disease. Head and neck professionals can advise patients that poor oral health carries increased risk of oral cancer. In this talk, we propose a new workflow between dental and medical professionals in order to optimise patient risk management.

HEAD AND NECK SCHWANNOMAS – AT TERTIARY CARE HOSPITAL, AND SYSTEMATIC REVIEW OF LITERATURE

Dr KABEKKODU Sushmitha[1], Dr DOSEMANE Deviprasad[1], Dr JAIPURIA Bhagyashree[1], Dr SREEDHARAN Suja[1], Dr M KAMATH Panduranga[1], Dr SHENOY Vijendra[1]
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OBJECTIVES

To describe the incidence, presenting clinical features, and management of head and neck extracranial schwannomas.

MATERIALS AND METHODS

Patients who presented to the Department of Otorhinolaryngology at our tertiary care hospital with head and neck schwannomas over the past 15 years were included in the study.

RESULTS

Out of 25 cases, 19 presented initially as neck mass. Vagus was the commonest nerve of origin followed by cervical sympathetic plexus. A rare presentation arising from brachial plexus C5 nerve root was also encountered. There were few rare cases of schwannomas arising from nasal cavity, paranasal sinuses and oral cavity. All underwent imaging studies (CT or MRI) preoperatively. Complete surgical excision was the treatment in all cases.

CONCLUSION

Unilateral neck mass which was presenting for a long duration of time was the commonest presenting complaint in head and neck schwannoma. The diagnosis is mainly by clinical features and investigations such as imaging and fine-needle aspiration. Mostly, the diagnosis is confirmed on the histological study after excision of the lesion. Mainstay of treatment is complete excision. Due to the proximity of the tumour with the involved nerve, palsy may occur. Hence, a correct diagnosis of schwannoma is essential.

JUVENILE NASOPHARYNGEAL ANGIOFIBROMA IN WEST JAVA INDONESIA

DEWI Yussy Afriani

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OBJECTIVES

Juvenile Nasopharyngeal Angiofibroma (JNA) is a benign, but locally aggressive because it has the ability to have bone destruct and spread to surrounding tissue. This research to determine the profile of ANJ in Hasan Sadikin Hospital which is the referral center hospital in West Java.

MATERIALS AND METHODS

This study is a descriptive retrospective to determine the profiles of JNA patients in Hasan Sadikin Hospital Bandung West Java Indonesia at 2011-2018 period.

RESULTS

There was 98 cases of ANJ; 95 are man (97%) and 3 are woman (3%) patients in range of 10-20 years old (97%). 68 patients (69%) with chief complain of epistaxis and others with nasal obstruction. The highest stage of JNA was found for IIC-Redkoswki (58%). The surgical approach is done by trans palatal (82%) and agents preoperative embolization was used PVA and Glue (84%). Preoperative embolization procedure can reduce intraoperative blood loss until the total amount of intraoperative bleeding of 300 ml.

CONCLUSION

Juvenile Nasopharyngeal Angiofibroma occurs in male early adolescent. The surgical management of ANB mostly done by embolization as perioperative stage and trans palatal approach. Preoperative embolization such as PVA and Glue can reduced intraoperative blood loss significantly.

HOW ACCURATE IS CYTOLOGY IN EXCLUDING MALIGNANCY IN THYROID NODULES 4CM OR MORE?

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Affiliations

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BACKGROUND

Though fine-needle aspiration cytology (FNAC) is used as the gold standard for predicting malignancy in thyroid nodules, its accuracy has been challenged in multiple studies that show that nodule sizes of $\geq 4\text{cm}$ are associated with higher risks of malignancy, with some articles recommending diagnostic lobectomy of the thyroid regardless of cytology to rule out malignancy. Our study aims to determine the false-negative rate of pre-operative FNAC in thyroid nodules $\geq 4\text{cm}$, by looking for malignancy on post-operative histology in cases where pre-operative FNAC was benign.

METHODS

We conducted a retrospective analysis of all thyroidectomies from 2010-2015 done at Tan Tock Seng Hospital by collating data on pre-operative FNA cytology, nodule size on ultrasound, ultrasound features, and post-operative histology.

RESULTS

517 records were retrieved, out of which 185 patients' records with nodules $\geq 4\text{cm}$ and preoperative FNAC results were selected. Benign cytology (Bethesda classes 1-3) accounted for 93.5% (N=173) of cases, of which 28 cases had malignant histology, thus giving a falsenegative rate of 16.2%. Overall, FNAC had a low sensitivity to malignancy (24.3%) but high specificity for benign diagnosis (98.4%) for thyroid nodules $\geq 4\text{cm}$.

CONCLUSION

Approximately 3 in 20 cytologically benign thyroid nodules $\geq 4\text{cm}$ are histologically malignant, suggesting cytology is insufficient to exclude cancer. A partial/total thyroidectomy is recommended to exclude malignancy.

TIME BASED PROTOCOLS OF TRACHEOSTOMY CHANGES IN LONG TERM TRACHEOSTOMISED PATIENTS ARE NOT INDICATED

KUMARASINGHE Dulitha [1, 2, 3]; SMITH Mark [1, 3], PALME Carsten [1, 3], RIFFAT Faruque [1, 2, 3, 4, 5]

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OBJECTIVES

Tracheostomy tube changes are a source of incredible psychological and physical discomfort. Tubes are typically changed within 4-weeks post insertion and then every 4-weeks to 3-monthly depending on clinical judgement. Changes are done for a variety of reasons including the presumed increased risk of infection associated with biofilm formation. Currently no evidence-based guidelines exist to guide tube changes and hence considerable variability exists between institutions. This study aims to assess the rates of colonisation and infection between tubes changed at different times.

MATERIALS AND METHODS

A prospective study of 65 adult tracheostomy patients' part of one of Australia's largest tracheostomy services. Tracheostomy tubes were divided into ≤ 4 weeks or > 4 weeks depending on their length of insertion and then tube samples sent for brush cytology and MCS during changes. Data was collected over 18 months. Chi-square tests were performed to compare culture results and other endpoints.

RESULTS

Chi squared analysis showed no significant difference in colonisation between tubes changed ≤ 4 weeks vs > 4 weeks (65.0% vs 53.3%, $p=0.38$). There were also no significant differences when comparing indication for insertion (Medical vs Surgical) or the number of times the inner cannula was changed daily. Outpatients in the community had significantly lower colonisation rates than inpatients ($P<0.05$).

CONCLUSIONS

The timing of tracheostomy tube changes may not affect colonisation and infection rates amongst patients with tracheostomies. Tube changes pose significant risk and discomfort to patients. Routine changes for the purpose of reducing infection risk may not be indicated especially for long term tracheostomised patients unless clinically indicated.

COMPARISON OF OUTCOMES OF INTRAOPERATIVE NEUROMONITORING OF RECURRENT LARYNGEAL NERVE VERSUS VISUALISATION ALONE DURING THYROIDECTOMIES: A SINGAPORE EXPERIENCE

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OBJECTIVES

Background: Although intraoperative nerve monitoring (IONM) has become commonly used to identify the recurrent laryngeal nerve (RLN) during thyroid surgeries, its value in reducing the incidence of RLN injury is still debatable. This study aimed to evaluate the outcomes of thyroid surgery using IONM versus visualisation alone (VA).

MATERIALS AND METHODS

We conducted a retrospective analysis of all 271 open thyroidectomies performed by the Otolaryngology Department in Khoo Teck Puat Hospital, Singapore, from 1 January 2014 – 31 December 2018. 10 patients were excluded from the RLN analysis as there was no postoperative nasoendoscopy. Of the 261 remaining, 108 were using IONM and 153 with VA. The primary outcome measure was the incidence of RLN injury and the secondary outcome measure was operative duration. Possible risk factors for RLN injury were also analysed.

RESULTS

There were 31 patients with immediate post-op RLN injury, of which 6 had permanent (>6 months) injury. There was minor improvement in the respective rates of immediate and permanent injury in the IONM group (9.3%, 0.9%) compared to the VA group (13.7%, 3.9%), but it was not statistically significant by Fischer's test ($p=0.33$, 0.41). There was no significant difference using the Mann-Whitney U test in the operative duration of both groups for hemi, total or repeat thyroidectomies. None of the analysed potential risk factors for RLN injury proved to be statistically significant, although malignant histology had the highest risk ($RR=1.63$, $95\%CI$ $0.82-3.21$).

CONCLUSION

This study suggests that IONM may not significantly reduce the risk of RLN injury or operative duration in thyroid surgeries.

NARROW BAND IMAGING IN THE DETECTION OF ORAL AND OROPHARYNGEAL MALIGNANT LESIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS

WONG Eugene [1]; ANSARI Umair [1]; SMITH Murray [1]; SINGH Narinder [1]; PALME Carsten [1];
SMITH Mark [1]; RIFFAT Faruque [1]

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BACKGROUND

This meta-analysis describes the validity of narrow band imaging (NBI) in the assessment of suspicious oral lesions.

METHODS

Medline, EMBASE and Scopus were searched for trial studies comparing NBI with conventional modalities in the oral cavity (OC) and oropharynx (OP) for the detection of dysplastic and malignant change.

RESULTS

7 studies were found, and generally supported the utility of NBI in different clinical settings, although there were exceptions. Pooled data from 5 studies of NBI validity demonstrated high summary specificity and sensitivity for a wide range of suspicious lesions of the OC or OP (83.1% with 95% CI 74.9%-89.0% and 90.4% with 95% CI 82.1%-95.1%. respectively). Summary positive likelihood ratio (LR+) was 8.7 (95%CI 4.7-16.1) and 0.2 (95%CI 0.13-0.27) respectively.

CONCLUSIONS

NBI is a promising diagnostic and surveillance tool for suspicious lesions in the OC or OP, however higher powered studies will define precise NBI criterion and clinical recommendations.

FP2_01

ARYTENOID VERTICAL HEIGHT DISCREPANCY IN PREDICTING OUTCOMES AFTER UNILATERAL VOCAL CORD MEDIALISATION

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OBJECTIVES

Unilateral vocal fold paralysis is a structural abnormality that often occurs secondary to dysfunction of the recurrent laryngeal nerve and typically presents as a breathy voice. Medialisation laryngoplasty is a constellation of procedures that improves apposition of the vocal cords. Many patients however fail to experience sufficient improvement in vocal quality post-operatively despite apparent glottic closure on stroboscopy. This suggests that asymmetry in other cord characteristics may also have acoustic consequences.

Our hypothesis is that arytenoid height symmetry may play a significant role in vocal quality. To our knowledge there are no human observational studies examining this topic. We therefore aimed to correlate asymmetry in arytenoid height and patient reported satisfaction in voice quality after thyroplasty.

METHODS

A retrospective review of prospectively collected data on consecutive patients who underwent medialisation thyroplasty at a tertiary Sydney Hospital was performed. Data collected included age, sex, onset of symptoms, as well as well as preoperative, and 3 months postoperative Maximum Phonation Time (MPT) and Voice Handicap Index (VHI). Pre-operative Computed tomography scans were assessed for discrepancy of arytenoid vertical height discrepancy.

RESULTS

23 patients (56.5% female) with mean age 52.4+/-14.9 years were included. Most patients underwent injection thyroplasty (78.3%,n=5) while the remaining underwent an open approach. A statistically significant inverse correlation was found between increasing height discrepancy and VHI improvement ($r=-0.6$, $p=0.003$.) Revision surgery was associated with increased height discrepancy.

CONCLUSION

Findings of this study may affect future recommendations to address height discrepancy in surgery to treat unilateral vocal cord paralysis.

NARROW BAND IMAGING IN THE HISTOPATHOLOGICAL DIAGNOSIS OF LARYNGEAL LESIONS

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OBJECTIVES

Early mucosal abnormalities seen in early malignant laryngeal lesions are challenging to diagnose on traditional white light endoscopy (WLE). Narrow band imaging (NBI) is a method of endoscopic visualisation that uses a special filter to narrow the colours displayed to green and blue wavelengths. The use of NBI allows clinicians to visualise the mucosal vascular patterns more precisely, allowing for early detection of angiogenic changes. The aim of this study was to compare the sensitivity, specificity, and accuracy of NBI in the diagnosis of vocal cord lesions.

MATERIALS AND METHODS

Patients with suspicious vocal cord lesions underwent traditional WLE followed by NBI. Images were graded independently according to the Ni classification. A clinically indicated biopsy was obtained and the histopathological diagnosis was compared against the NBI grade.

RESULTS

A total of 42 patients were recruited with 45 lesions biopsied. The male to female gender ratio was 3.5 to 1, with a mean age of 62 years. 30 of the 45 lesions were true positive and 1 was false negative. There were no false positive results and 14 true negatives were found. This yielded a sensitivity of 96.67% ($p=0.01$) and specificity of 100% ($p=0.07$). The accuracy was 97%.

CONCLUSION

NBI allows for improved visualisation of early changes in the mucosal microvasculature of the larynx compared to traditional WLE. NBI can be used to detect early laryngeal neoplastic changes in the clinic and operating theatre setting. This can result in early treatment and subsequent lower morbidity and mortality.

HYALURONIC ACID INJECTION LARYNGOPLASTY FOR MUSCLE TENSION DYSPHONIA: PRELIMINARY RESULTS

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1 – Voice Research Laboratory, Faculty of Health Sciences, The University of Sydney, Sydney, Australia; 2 – Central Clinical School, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia

OBJECTIVES

This study examined the efficacy of injection laryngoplasty (IL) using cross-linked hyaluronic acid (HA) as an adjunct to voice therapy in treating muscle tension dysphonia (MTD) with and without glottic insufficiency (GI).

MATERIALS AND METHODS

Thirty-four patients (17 male, 17 female) with MTD that did not respond to standard voice therapy underwent IL using commercially available HA gel. Mean age of patients was 42.4 years; standard deviation = 13.4; range = 23 - 71. Outcome measures included Voice Handicap Index-10 (VHI-10), stroboscopic ratings of antero-posterior and lateral supraglottic constriction, maximal phonation time (MPT), and acoustic measures of harmonics-to-noise ratio (HNR) and smoothed cepstral peak prominence (CPPS) from vowel /a/, Rainbow Passage, and the third CAPE-V phrase. Data were collected at baseline and 6-12 weeks after IL.

RESULTS

No patients underwent complications or adverse effects. VHI-10 statistically significantly dropped after IL. Rating scores of supraglottic constriction also decreased significantly. Acoustic analyses of 28 patients with pre- and post-surgical voice recordings showed statistically significant increase in HNR. Other acoustic measures did not show significant changes after IL. *Post hoc* analyses showed that patients with GI showed improvement in both VHI-10 and HNR while non-GI patients only showed improvement in VHI-10. Male patients showed improvement in VHI-10 only. Meanwhile, female patients showed improvement in both VHI-10 and HNR.

CONCLUSION

HA IL can be used safely in combination with voice therapy to treat MTD effectively. The effects of HA injection appeared to be more pronounced in female patients and in those with GI.

FP2_04

TREATMENT OUTCOMES OF PATIENTS WITH LARYNGOTRACHEAL STENOSIS: A 6-YEAR EXPERIENCE IN A TERTIARY HOSPITAL IN THE PHILIPPINES

SARMIENTO Abigail [1]; DELA CRUZ, Anna Pamela [1]

1 - Department of Otorhinolaryngology, College of Medicine, University of the Philippines Manila, Metro Manila, Philippines

OBJECTIVES:

To evaluate the treatment outcomes of open and endoscopic surgical techniques on patients with laryngotracheal stenosis.

MATERIALS AND METHODS

This is a cross-sectional, retrospective study: a six-year review of patients with laryngotracheal stenosis.

RESULTS

A total of 34 patients (21 adults and 13 pediatric patients) underwent surgery for airway stenosis between 2013 to 2019. The mean age was 23 years old at time of first surgery. The most common etiology for the stenosis was prolonged intubation (67%). Other etiologies include multiple intubations (maximum of 8 times), external trauma such as strangulation injury, caustic ingestion and flame burn. The most common site of stenosis is the subglottis (62%). Most patients had an initial Cotton-Myer stage of 3 (63%). Ten out of the 34 patients (29%) were successfully decannulated after the first surgery. Of the eight (8) patients who underwent open surgeries, six (6) patients were successfully decannulated. Twenty patients underwent endoscopic repair; 7 were successfully decannulated and 16 required multiple surgeries.

CONCLUSION

Patients with airway stenosis undergoing endoscopic surgery are more likely to receive further surgery before successful decannulation.

SURGICAL MANAGEMENT OF NASOFRONTAL ANGLE IN RHINOPLASTY

Prof. Sameer Ali Bafaqeeh.

ABSTRACT

Profile refinement is one of the most common reasons patients seek consultation for rhinoplasty. The radix is an essential component of the profile and is carefully assessed from the standpoint of projection and position. Height and contour are evaluated at the radix, rhinion, and nasal tip. Each component of the dorsal profile is individually classified as overprojected, underprojected, or of appropriate height.

Radix has a special concern in rhinoplasty. Minimal changes in the position of nasofrontal angle can produce a different image of nasal and midfacial length in the profile view. In a patient with deep nasofrontal angle makes the illusion of a short nose. There are different techniques for radix surgical correction, especially in the type of materials used in augmentation of the deep radix.

The purpose of my presentation is to evaluate the different materials used for radix augmentation during primary and revision rhinoplasty: Skoog, crushed or diced septal cartilage wrapped in temporalis fascia or fascia Lata, rip cartilage, or crushed cartilage in fibrin glue, intact beveled edge septal or rib cartilages covered by fascia late, conchal cartilage and layers of fascia Lata.

Some patients undergoing crushed cartilage group showed irregularities during the postoperative follow-up, but all autologous grafts represent acceptable graft material for radix augmentation.

My experience with radix augmentation during cosmetic rhinoplasty over a 25-years period using both autologous and synthetic grafts provide me into maximizing success. I will discuss various surgical considerations, patient selection, graft materials, complications and provide patient examples.

FACIAL PROFILE OF FILIPINO YOUNG ADULTS USING MANUAL ANTHROPOMETRY

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1 – Department of Ear, Nose, Throat, Head and Neck Surgery, Ospital ng Maynila Medical Center, Manila, Philippines

OBJECTIVES

This study aims to establish baseline average measurements of the facial anthropometric profile of young adult Filipinos.

Specific objectives include establishing the normal range of measurements of the craniofacial complex among young adult Filipinos, the frequency of identical, smaller, or greater measurements in relation to the normal range of North American Caucasians, and the identification of the regions that contribute most to significant differences.

MATERIALS AND METHODS

The study was conducted using 65 male and 66 female healthy young adult Filipino subjects devoid of any obvious facial deformity, with Class I occlusion and no history of previous maxillofacial trauma or prior surgical treatment.

13 anthropometric measurements were performed using a digital sliding caliper according to classical methods of physical anthropology. Obtained data was statistically analyzed and compared versus previously established corresponding normal range of North American Caucasians using independent sample t-test.

RESULTS

10 out of 13 anthropometric measurements were observed to be longer on average in Filipinos. Compared to North American Caucasians, the male and female Filipino populations were also observed to more frequently have greater than normal measurements of biocular width, eye fissure length, morphological nose width, and mandible width. It was also observed that the Filipino populations more frequently had lesser than normal measurement of face width.

CONCLUSION

The facial profile of the Filipino young adult has measurable differences as compared to the standards for North American Caucasians. These morphological differences should be considered in planning any facial aesthetic or reconstructive procedure.

MODIFIED ALA-SILL EXCISIONAL TECHNIQUE TO AVOID ALA-NOSTRIL SHAPE DEFORMITIES

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Facial Aesthetic Core of ENT Surgeons, Manila City, Philippines

ABSTRACT

OBJECTIVE

To describe a modified technique for alarplasty is described to avoid possible deformities in Filipino noses

STUDY DESIGN

Descriptive Study

METHODOLOGY

We begin this approach by doing the pinch test to identify the ala-sill junction. We then mark the sill resection, making sure that we retain 3mm of the sill. We then identify the extent of alar resection, 1mm from the ala-sill junction, with a maximum of 3mm tissue resection. The distance of the excised edge of the ala must be 3mm from the nasolabial fold. Any further incision can be done to relax the area of excision for cosmesis. Possible pitfalls include strangulation of the ala leading to an unnatural curvature, and excessive excision, which may lead to a tear-dropped nostril configuration.

RESULTS

Patients were reported to have more desirable results, and appear to have more aesthetically pleasing outcomes. This approach has also helped in avoiding more aggressive alar resection leading to a more obvious cosmetic alteration of Filipino noses.

CONCLUSION

This technique has been proven to create a more natural outcome, as well as overall better satisfaction ratings in post Rhinoplasty Filipino patients.

TONGUE BASE REDUCATION IN CHILDREN WITH REFRACTORY OBSTRUCTIVE SLEEP APNOEA: THE PERTH CHILDREN'S HOSPITAL EXPERIENCE

Authors:

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Department of Otolaryngology Head and Neck surgery, Perth Children's Hospital, Perth, Western Australia, Australia.

OBJECTIVES:

To determine the efficacy of midline posterior glossectomy (MPG) and lingual tonsillectomy (LT) in the treatment of refractory obstructive sleep apnoea (OSA) in children and identify predictive factors for positive outcomes.

MATERIALS AND METHODS:

A retrospective analysis of all MPG and LT cases was conducted at Perth Children's Hospital over a ten-year period, from 2007 to 2017. Eight cases were identified where the primary indication for surgery was for refractory OSA, where patients have failed prior treatments such as adenotonsillectomy and/or positive airway pressure (PAP) therapy.

RESULTS:

Eight patients, 5 male and 3 female with age ranging between 1 to 13 years were included in the study. Seven out of 8 children were syndromic, including 4 with trisomy 21, 1 with Rudenstein Taybi syndrome and 1 with Beckwith-Wiedemann syndrome. Fifty percent of children had an elevated BMI preoperatively. All had preoperative PSG demonstrating moderate to severe OSA after some form of initial treatment. Four patients demonstrated significant improvement after tongue base reduction, with no further requirement for PAP therapy. The remainder had residual symptoms and abnormal PSG findings, most were referred back for PAP therapy. Children with normal BMI preoperatively consistently improved after MPG and LT, irrespective of whether they had a diagnosed syndrome.

CONCLUSION:

Midline posterior glossectomy and LT appears to be more effective in treatment of refractory OSA in children with normal BMI preoperatively. This appears to be independent of their syndromic diagnosis. Aggressive weight loss programs should be considered prior to surgery in this population.

**EVALUATION OF PREFABRICATED ADJUSTABLE THERMOPLASTIC MANDIBULAR
ADVANCEMENT DEVICES(PAT-MADS) AS AN ADJUNCT FOR THE TREATMENT OF
OBSTRUCTIVE SLEEP APNOEA(OSA)**

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OBJECTIVE

To evaluate the use of direct to consumer Prefabricated adjustable thermoplastic mandibular advancement devices(PAT-MADs) and its effectiveness in the treatment of OSA.

MATERIALS AND METHODS

32 patients with diagnosed mild-moderate OSA on formal polysomnography(PSG) were fitted with a PAT-MAD(MyTAP™, Airway Management Inc). Sleep indices: apnea-hypopnea index(AHI), hypopnea index(HI), apnea index(AI), oxygen disturbance index(ODI), Lowest O₂ saturation(Lsat) were measured with a Level 3 home sleep apnea test(HSAT) pre versus post treatment. Quality of life(QOL) surveys of Epworth sleepiness scale(ESS), Pittsburg sleep quality index(PSQI), Functional outcomes of sleep quality-10(FOSQ10) and satisfaction surveys were administered.

RESULTS

Over a treatment duration of 3months, indices showed a trend to improvement. Results were statistically significant when stratified into groups who achieved cure; Mean improvement in AHI: -12.2 ± 9.9 , HI: -6.8 ± 3.7 , ODI: -11.1 ± 9 for responders. Out of QOL surveys, ESS showed a decrease of $-1.41 [-2.52, -0.3]$ ($p=.017$) when corrected for age and BMI. Up to 60% of patients found that the device was useful in alleviating snore symptoms.

CONCLUSION

PAT-MAD, with a titratable component is a direct to market, economical option for the patient for trial use before proceeding with customized MADs. Potential applications for its use in resolving subjective snore symptoms and sleep quality require further validation.

FP3_03

DRUG INDUCED SLEEP ENDOSCOPY: IS THERE A DIFFERENCE IN THE DEGREE OF COLLAPSIBILITY AT DIFFERENT SEDATION LEVELS?

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[1] – Department of Otolaryngology-Head and Neck Surgery, Khoo Teck Puat Hospital, Singapore

OBJECTIVES

Drug Induced Sleep Endoscopy (DISE) is commonly used with the aim of identifying obstructive sites that may contribute to Obstructive Sleep Apnoea (OSA). However, there is still much variation in the conduct of the procedure. This study aimed to look at one of these variables – sedation depth. We aimed to determine if variation in sedation depth (measured using Bispectral Index [BIS]) affects the site(s) and severity of obstruction in OSA patients undergoing DISE.

MATERIALS AND METHODS

We retrospectively reviewed the clinical and DISE data of 104 patients with moderate and severe OSA (apnoea-hypnoea index [AHI] ≥ 15). DISE was performed in the operating room, using a target-controlled infusion of propofol to achieve steady states at two BIS levels: 60-70 and 71-80. The sites and severity of airway collapse were graded using the VOTE classification, with a site being deemed to have significant obstruction when its VOTE Obstruction Grade was ≥ 1 .

RESULTS

At deeper sedation, 51% of patients had more obstructive sites. The proportion of patients with significant obstruction also increased for each site, most prominently at the tongue base (34% vs. 57%). There was no statistically significant correlation of increased collapsibility with AHI, Body Mass Index, or Age.

CONCLUSION

This study revealed that a deeper sedation depth leads to an increase of both the number of obstructive anatomical sites, and severity of obstruction in patients with moderate to severe OSA, when examined by DISE. The site that appears to be most affected is the tongue base.

EFFICACY OF NASOALVEOLAR MOLDING AND NASAL CONFORMERS AS AN ADJUNCT TO ACHIEVE NASAL SYMMETRY IN UNILATERAL CLEFT LIP

INTRODUCTION

Most of the primary cleft lip repair techniques result in stigmatizing the nasal outcomes such as depression of ala, deviation of nasal septum, resulting in gross nasal asymmetry.

AIM

To assess the efficacy of various modalities employed to establish nasal symmetry in unilateral cleft lip

METHODOLOGY

80 patients with complete unilateral cleft lip/palate, were operated for primary cheiloplasty with modified Millard's rotation and advancement technique. Subjects were divided into 4 groups of 20 each. Group 1 subjects operated employing modified Millard's technique . In group 2, subjects underwent NAM therapy followed by modified Millard's repair. Group 3 subjects underwent modified millard's repair followed by placement of a nasal conformers for 12 months postoperative. Group 4 patients were treated using NAM therapy followed by modified Millard's repair and placement of conformers. All patients were evaluated after 16 months for parameters like Alar inclination angle, Nostril apex overhang, Nostril height and diameter, Columellar length and deviation angle.

RESULTS

All 6 parameters were statistically significant in group 4 .

CONCLUSION

1. Maneuvers like NAM placement of nasal conformers have significant influence in establishing nasal symmetry.
2. Findings of the study indicate that nasal conformers are effective as NAM in achieving nasal symmetry.

ENDOSCOPIC EAR SURGERY FOR MIDDLE EAR CONGENITAL CHOLESTEATOMA IN CHILDREN

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OBJECTIVES:

To describe clinical and imaging characteristics of pediatric middle ear congenital cholesteatoma and to evaluate the result of endoscopic ear surgery for pediatric middle ear congenital cholesteatoma.

MATERIALS AND METHODS:

Prospective study conducted on all children with diagnosis of middle ear congenital cholesteatoma and treated in Pediatric ENT Department - National Otorhinolaryngology Hospital of Vietnam (the main referral center for pediatric ENT care in Northern Vietnam) from February 2017 to February 2019.

RESULTS:

35 children with diagnosis of middle ear congenital cholesteatoma were included during the study period. Mean age was 3.7 y.o. (ranging from 22 m.o. to 7 y.o.). There were 24 boys (68.6%) and 11 girls (31.4%). All but 1 patient had abnormal CT images with suspicion of cholesteatoma. When Potsic's classification was applied: 21 patients were in stage I (60%); stages II, III, IV had 3; 7 and 4 patients, respectively. All patients were treated with surgery: there were 28 endoscopic transcanal tympanoplasty and cholesteatoma removal; 3 antro-atticotomy with tympanoplasty and 4 canal-wall-down mastoidectomy. There was no peri-operative complication and no recurrence after follow-up (from 6 to 30 months, mean 15 months) in subgroup treated with endoscopic transcanal tympanoplasty.

CONCLUSION:

Pediatric middle ear congenital cholesteatoma were seen commonly in Potsic stage I. Endoscopic transcanal tympanoplasty with cholesteatoma removal proved to be an effective and safe surgical treatment for early stages of pediatric middle ear congenital cholesteatoma.

A SYSTEMIC REVIEW OF DIAGNOSIS AND MANAGEMENT OF TYPE 1 LARYNGEAL CLEFT

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OBJECTIVES

A type 1 laryngeal cleft can be difficult to diagnose due to its non-specific or sometimes silent clinical presentation. A range of different treatment modalities have been described in the literature and currently there is no consensus on which is most appropriate. Our aim is to provide guidance on diagnosis and best practice management.

MATERIALS AND METHODS

A systematic review of the literature was performed. Studies were sourced from Medline, PubMed and Cochrane Library. Using a validated tool, a quality assessment of the included studies was conducted. A meta-analysis was performed to assess the outcome of each treatment modality using MedCalc software.

RESULTS

A total of 19 of 674 potential studies were included for analysis. Symptom resolution with return to normal diet was seen in 52.3% (95% CI, 32.3–71.9%) of patients managed conservatively. Of the patients treated with injection augmentation, 69.2% (95% CI, 59.1–78.1%) had complete resolution of symptoms or on modified barium swallow (MBS). The success rate of patients undergoing endoscopic surgical repair with complete resolution of symptoms was 65.4% (95% CI, 49.1–80.1%). Based on research findings we present a management algorithm.

CONCLUSION

An initial three-month trial of conservative management with thickened fluids and positional strategies is recommended. In the presence of defined indications, endoscopic repair should be considered. Injection augmentation can be considered prior to surgical repair in select patients to assess for potential surgical outcome. Patients should be followed up with an MBS six to eight weeks post-operatively.

ROUTINE USE OF TRANEXAMIC ACID IN MANAGEMENT OF SECONDARY POST-TONSILLECTOMY BLEEDING – DOES IT MAKE A DIFFERENCE?

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OBJECTIVES

Tranexamic acid (TXA) is a well known synthetic antifibrinolytic agent that has been shown to reduce bleeding and transfusion in surgeries. Previous studies failed to show the prophylactic benefit of TXA in reducing secondary post-tonsillectomy bleeding (PTB). The aim of our study was to evaluate the therapeutic effect of TXA in reducing representation to theatres and blood transfusion in secondary PTB.

MATERIALS AND METHODS

Retrospective analyses of all PTB admissions at Perth Children's Hospital (PCH) emergency department, who underwent adenotonsillectomy at PCH or in private sector between September 2017 and August 2018. All patients received TXA 10mg/kg and Amoxycillin 25mg/kg, IV, 8/hourly once admitted. All children received TXA and Amoxycillin prescription for 5 days on discharge. Admissions rate, representation to theatres and the need for transfusion were analysed and compared to a group of historical controls from the same institution from 2012-2013 when TXA was not routinely used in PTB.

RESULTS

2256 children (719 at PCH and 1537 in the private sector) underwent AT. The use of TXA reduced risk of return to theatre by 49% but did not reduce the incidence of blood transfusions. No differences in bleeding rates were observed between different surgical techniques. No complications resulting from the use of TXA were found.

CONCLUSION

TXA for secondary bleeding significantly reduced the risk of reoperation in secondary PTB compared to historical controls. This is the first study where TXA was used in a therapeutic manner for PTB. Prospective trials are necessary to evaluate the effectiveness of TXA in the management of secondary PTB.

THE ROLE OF DYNAMIC VISUAL ACUITY (DVA) TEST FOR ASSESSING BALANCE DISORDER IN TUBERCULOSIS PATIENTS FOLLOWING STREPTOMYCIN THERAPY

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OBJECTIVES

Balance disorder is the side effect of Streptomycin therapy in tuberculosis (TB) patients which can cause decreased quality of life. One of the examinations that can be used to assess impaired balance in primary healthcare is dynamic visual acuity (DVA). This study aims to determine the role of DVA for assessing balance disorder in TB patients receiving Streptomycin therapy.

MATERIALS AND METHODS

This study was a pre-experimental study intended to determine changes in vestibular function using DVA test in a group of TB patients before and after 56 times administration of Streptomycin, or when subjects complained of balance disorders. A total of 57 samples were taken sequentially at ENT out-patient clinic, Cipto Mangunkusumo National General Hospital, Jakarta, during April-October 2014. The data then analyzed using univariate and bivariate analysis.

RESULT

There were 40 subjects that completed Streptomycin therapy for 56 days. The mean age was $38,13 \pm 11,25$ years. It was reported that 15 subjects had dizziness after receiving 41-50 grams of Streptomycin. From 30 subjects (75%) that had bilateral peripheral vestibular impairment (positive DVA examination), 28 of them complained of dizziness ($p > 0,05$). The median value of DVA line before therapy was 0 (minimum 0-maximum 2) line and then increasing to 3 (minimum 0-maximum 6) line, suggesting there was a significant change of DVA examination after Streptomycin therapy ($p < 0,05$).

CONCLUSION

Dynamic visual acuity can be used as one of alternative examination tools in primary healthcare to assess balance disorder as the side effect of Streptomycin therapy in tuberculosis patients.

A RADIOLOGICAL STUDY ASSESSING THE PREVALENCE OF FRONTAL RECESS CELLS AND THE MOST COMMON FRONTAL SINUS DRAINAGE PATHWAYS*

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ABSTRACT BACKGROUND

To date, there are numerous studies documenting the prevalence of frontal recess cells, but only 1 study using the newly developed International Frontal Sinus Anatomical Classification (IFAC) system. The identification of the frontal cells and their influence on the frontal drainage pathway plays an important role in endoscopic frontal sinus surgery.

OBJECTIVE

The aim of this study is to document the radiological prevalence of various types of frontal cells, as classified by IFAC and the most common frontal sinus drainage pathways based on its anatomic relationships with these cells.

METHODS

Using a novel preoperative virtual planning software (Scopis Building Blocks), consecutive computerized tomography scans of the sinuses of patients were analyzed for the prevalence of frontal cells, as classified by the by IFAC, and the frontal sinus drainage pathways at the Ear Nose Throat Hospital of Ho Chi Minh City, Vietnam.

RESULTS

In this study, 208 computed tomography scans of consecutively selected frontal sinuses of 114 patients were included for analysis. The agger nasi cell was present in 95.7% of reviewed scans. The frontal cells prevalence was as follows: supra agger cell (SAC): 16.3%, supra agger frontal cell (SAFC): 13%, supra bulla cell (SBC): 46.2%, supra bulla frontal cell (SBFC): 4.3%, supra orbital ethmoid cell: 17.3%, and frontal septal cell: 10.6%. The most common frontal sinus pathway type in relation to frontal cells was medial to SAC (70.6%), medial to SAFC (81.5%), anterior to SBC (88.5%), and anterior to SBFC (100%). In cases that had 2 frontal cells group, the drainage pathway was medial to SAC/SAFC and anterior to SBC/SBFC in most cases.

* The article has been published in American Journal of Rhinology and Allergy

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CONCLUSION

This study documents the prevalence of frontal cells (classified by IFAC) using a novel preoperative virtual planning software in the Vietnamese population. It demonstrates predominantly medial anteromedial frontal drainage pathways as related to these frontal cells.

KEYWORDS

International Frontal Sinus Anatomical Classification, frontal sinus cells, supra agger cell, supra agger frontal cell, supra bulla cell, supra bulla frontal cell, frontal septal cell, supra orbital ethmoid cell, frontal sinus drainage pathway, preoperative virtual planning software.

FP4_03

THE EFFECT OF 1.25 DIHIDROXYVITAMIN D3 TOWARD IL-12, IL-10 AND TGF- β IN ALLERGIC RHINITIS PATIENT WITH SUBCUTANEOUS IMMUNOTHERAPY

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OBJECTIVES

The active form of vitamin D (1.25 Dihydroxyvitamin D3) shown the ability to inhibit both Th1 and Th2 and suppressing production of IL-12 generated IFN- γ , enhancing Treg production including anti-inflammation cytokines. On the other side, subcutaneous allergen immunotherapy (SCIT) generally inhibits allergen induced and correlated with increased IL-12 and IL-10 and TGF- β in skin macrophage. We hypothesized that active form of vitamin D as adjuvant would be accelerate the onset of a response immune tolerant increased proinflammatory and anti-inflammatory cytokines in allergic rhinitis patient with SCIT.

MATERIALS AND METHODS

The study was an unpaired comparative analytic research with a randomized controlled trial design. Thirty-six of moderate severe allergic rhinitis patients with vitamin D deficiency, age 18-49 years received SCIT with Dermatophagoides pteronyssinus allergen extract for 15 weeks were divided into two groups: SCIT along with calcitriol 0.5 Mcg/day and SCIT along with placebo. All subjects were evaluated at baseline and week-15 for IL-12, IL-10 and TGF- β using ELISA. The Mann Whitney test were used for analysis.

RESULTS

There was a significance different in increasing IL-12 level in SCIT+ Calcitriol group compare with SCIT+placebo ($p=0.045$) in 15th weeks. There were no differences increasing IL-10 and TGF- β ($p=0.728$; $p=0.155$) in 15th weeks between two groups. The decrease in nasal symptoms score did not differ significance between two groups ($p>0.05$).

CONCLUSIONS

1.25 Dihydroxyvitamin D3 can be used as a promising adjuvant for SCIT by increasing levels of IL-10 and TGF- earlier than IL-12 and accelerate immune tolerant.

CHANGES IN MUCOCILIARY CLEARANCE AND OLFACTION FOLLOWING ENDOSCOPIC SINUS SURGERY

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OBJECTIVE:

Mucociliary clearance and olfaction are two main physiological properties of the nose affected by chronic rhinosinusitis(CRS). However, CRS being a reversible disease. This study aimed to assess whether surgical treatment with functional endoscopic sinus surgery(FESS) would help restore the mucociliary clearance and olfactory function of nose.

MATERIALS AND METHODS:

This is a prospective observational study done on patients with CRS with or without nasal polyps undergoing FESS in the department of ENT in a tertiary hospital over a period of seven months. All patients underwent pre-operative measurement of mucociliary clearance time using saccharin and an assessment of olfactory function using CCCRC test. Patients then underwent FESS. Postoperatively at three months, above tests were repeated and changes in saccharine time and olfactory scores were calculated and analyzed.

RESULTS:

Of the 96 patients with CRS, 68 came back for follow up. 66% patients had polyposis and 80% underwent primary surgery. There was a statistically significant reduction of 26% in mucociliary clearance time (p value 0.01) and 10% improvement of olfactory scores($p < 0.05$) at three months follow up. The improvement in mucociliary time was more for patients with polyposis and for those who underwent revision surgery. Majority of patients with anosmia improved to hyposmia although hyposmic patients did not have any significant improvement.

CONCLUSION:

Our study showed a significant improvement in nasal mucociliary clearance and olfaction after endoscopic sinus surgery. FESS apart from clearing the disease from sinuses, improves normal physiological functions of nose that were impaired due to the chronic inflammatory process.

AMOXICILLIN/CLAVULANATE TABLET (625MG) PLUS AMOXICILLIN CAPSULE (500MG) IS NOT INFERIOR TO AMOXICILLIN/CLAVULANATE TABLET (1000MG) FOR TREATING ACUTE BACTERIAL RHINOSINUSITIS

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OBJECTIVES

Drug-resistant *Streptococcus pneumoniae* requires the increased dose of amoxicillin up to 4 grams per day. While dosage form of amoxicillin is a capsule, amoxicillin/clavulanate is a tablet. It is unknown whether the addition of amoxicillin capsule to amoxicillin/clavulanate tablet is effective. This study aimed to assess the effects of the addition of amoxicillin capsule to amoxicillin/clavulanate tablet for treating acute bacterial rhinosinusitis.

MATERIALS AND METHODS

Patients diagnosed as acute bacterial rhinosinusitis were randomized to receive either amoxicillin/clavulanate tablet (625 mg) plus amoxicillin capsule (500 mg) (AmClav625Am500) or amoxicillin/clavulanate tablet (1000 mg) (AmClav1000) twice daily for 7 days. Outcome assessors were blinded. Primary outcome was cure rate at one week. Secondary outcomes were symptoms, 22-item Sino-Nasal Outcome Test (SNOT-22) and adverse events.

RESULTS

Fifty-six patients (42.9% male, age 44.2 ± 15.2 years) were enrolled. Cure rate of patients receiving AmClav625Am500 at one week (78%) was comparable to AmClav1000 (75%), (odds ratio 1.2, 95%CI 0.4, 4.2, $p=0.50$). Mean symptoms score at the endpoint of AmClav625Am500 was not different from AmClav1000 (3.0 ± 2.9 vs 3.7 ± 3.0 , mean difference (MD) -0.64, 95%CI -2.2, 0.93, $p=0.42$). Mean SNOT-22 and Mean SNOT-22-rhinosinusitis domain of AmClav625Am500 were not different from AmClav1000 (0.9 ± 0.6 vs 1.1 ± 0.9 , MD -0.2, 95%CI -0.6, 0.2, $p=0.32$ and 1.2 ± 1.0 vs 1.6 ± 1.2 , MD -0.4, 95%CI -1.0, 0.2, $p=0.15$ respectively). Diarrhea and nausea were reported in 3 cases without difference between groups, $p=0.60$.

CONCLUSION

The effects of the addition of amoxicillin capsule (500 mg) to amoxicillin/clavulanate tablet (625 mg) for treating acute bacterial rhinosinusitis was comparable to amoxicillin/clavulanate tablet (1000 mg).

FP4_06

LARYNGOPHARYNGEAL REFLUX AS AN ASSOCIATED FACTOR CHRONIC RHINOSINUSITIS

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OBJECTIVES

Chronic rhinosinusitis (CRS) is associated with multifactorial etiologies, making CRS often uncontrolled. One of the factors thought to be associated with CRS is laryngopharyngeal reflux (LPR), but the association is still unclear. The aim of this study is to find LPR as an associated factor CRS, by measuring pepsin level as a direct pathway marker, and substance P level as an indirect pathway marker; after proton pump inhibitor drug (PPI) administration.

MATERIALS AND METHODS

A randomized double-blind clinical trial study, parallel two group, was conducted in CRS with LPR patients at the Rhinology-Allergy Clinic in Hasan Sadikin General Hospital Bandung, Indonesia, since March until September 2018. A total of 72 subjects met the criteria, divided into Lansoprazole (PPI) and placebo group for 28-days treatment, and 61 subjects attended to the end. Pepsin and substance P levels were measured by ELISA method from nasal mucosa. The statistical analysis used was the Mann Whitney test.

RESULTS

The decrease of pepsin level was greater in the treatment group (from baseline 0.11(0.04-0.14)ng/ml to 0.06(0.01-0.08)ng/ml), than placebo (from baseline 0.03(0.01-0.11)ng/ml to 0.08(0.03-0.14)ng/ml), with p value <0.001. But there was no difference in decrease of substance P level in treatment group (from the baseline of 5.56(4-7.3)pg/ml to 5.62(4.11-6.97)pg/ml), compared to the placebo (from baseline 6.19(4.42-8.0)pg/ml to 6.0(4.78-7.38)pg/ml), with p value > 0.05.

CONCLUSION

LPR is associated with CRS by direct pathway based on decrease of pepsin level in nasal mucosa, but not proven yet by indirect pathway based on decrease of substance P level.

COMPARISON OF EOSINOPHILIC OTITIS MEDIA (EOM) AND EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS (EGPA) WITH OTITIS MEDIA

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OBJECTIVES

This study aimed to compare the clinical manifestations of eosinophilic otitis media (EOM) with those of eosinophilic granulomatosis with polyangiitis (EGPA) with otitis media (OM).

MATERIALS AND METHODS

This retrospective study recruited 22 ears of 11 patients diagnosed with EOM (EOM group) and 20 ears of 12 patients with EGPA with OM (EGPA group). The endpoints were otorhinologic findings and bronchial asthma (BA) status. Eosinophils in the peripheral blood and serum myeloperoxidase (MPO)- and proteinase 3 (PR3)- antineutrophil cytoplasmic antibodies (ANCA) were measured. Pure-tone audiograms were also compared.

RESULTS

No significant differences were found between the two groups in the incidence of BA, chronic rhinosinusitis (CRS), and nasal polyp (NP) or age of onset of OM, BA, and CRS. The EGPA group had significantly higher peripheral blood eosinophil counts than EOM group. A total of 6 patients (50%) in the EGPA group were positive for MPO-ANCA, whereas none in the EOM group were positive for MPO- or PR3-ANCA. At the latest visit, abnormal otologic findings, such as perforated tympanic membrane, were more common in the EOM group. The average air conduction threshold and air-bone gap were significantly higher in the EOM group than in EGPA one.

CONCLUSION

From an otorhinologic point of view alone, it is challenging to differentiate EOM from EGPA preceded by OM. During treatment of EOM, monitoring peripheral blood eosinophils and serum MPO- and PR3-ANCA as well as attention to the appearance of the characteristic systemic manifestations of EGPA may contribute to early detection of EGPA.

FP4_08

IS CT NECESSARY FOR IMAGING PEDIATRIC CONGENITAL SENSORINEURAL HEARING LOSS?

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OBJECTIVES

To determine if MRI alone is adequate for the pre-operative assessment of pediatric congenital sensorineural hearing loss (SNHL).

MATERIAL AND METHODS

MRI and CT of the temporal bones conducted on the same day were analyzed retrospectively in 240 consecutive patients in a tertiary pediatric ENT service over 6 years for investigation of SNHL. Children under the age of 5 years with no clinical syndrome or dysmorphic external ear anatomy were included.

RESULTS

169 patients were included. MRI was able to detect nearly all instances of clinically relevant anatomical variances. These were absent or hypoplastic cochlear nerves, large vestibular aqueduct syndrome (LVAS), post-inflammatory cochlear obliteration, high riding jugular bulb and the presence of otomastoid fluid. MRI detected cochleovestibular dysplasia in 32 out of 54 ears, with the majority of the additional CT findings reflecting subtle cochlear dysplasia seen in the context of IP2. Of the 22 cases of dysplasia not evident on MRI, 13 patients (59%) also had LVAS, which would have prompted evaluation with CT, due to the near universal co-existence of these entities. MRI could accurately assess the extent of mastoid bone pneumatization bilaterally in 166 patients. 1 out of the 169 patients had an aberrant intratemporal facial nerve anatomy was occult on MRI and potentially posed a surgical threat.

CONCLUSION

In a defined pediatric SNHL cohort, MRI alone has high utility and the addition of routine CT imaging of the temporal bones has negligible additional yield or bearing on surgical outcomes.

ASSOCIATION BETWEEN HEARING LOSS AND COGNITIVE FUNCTION IN AN AGEING ETHNIC CHINESE SINGAPOREAN POPULATION

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OBJECTIVES

Hearing loss has been shown to be associated with cognitive impairment in epidemiological studies of older persons in Western populations; however, (i) there has been limited study of the association in Asian populations and (ii) most studies have utilized verbally administered cognition tests to investigate this relationship and may therefore overestimate cognitive impairment. This study investigated the association between untreated hearing loss and various cognitive functions using a predominantly non-verbally administered cognitive test battery in a cohort of ageing ethnic Chinese Singaporeans.

METHODS

227 participants (149 female, 77 male; mean age 71.3 +/- 5.7 years) completed pure tone audiometry, a computerized, tablet-administered cognitive test battery, geriatric depression scale and geriatric anxiety inventory in this baseline cross-sectional study. A pure tone average of thresholds at 0.5, 1, 2 and 4kHz in the better hearing ear was used for data analysis. Multiple regression analyses were performed, adjusted for age, education, gender, depression and anxiety.

RESULTS

Moderately-severe to profound hearing loss predicted paired associates learning ($P<0.000$), verbal recognition memory ($P=0.015$) and delayed matching to sample ($P=0.006$). Geriatric anxiety inventory score was a significant predictor of paired associates learning ($P=0.000$) and spatial working memory ($P=0.021$).

CONCLUSION

Hearing loss is independently associated with poorer scores in several cognitive domains pertaining to memory, including visual and verbal memory, new learning, attention and recognition, even when verbally administered test stimuli are reduced to a minimum. The findings support those documented in Western populations and have significant implications for the ageing Singaporean population.

ROUND WINDOW BILATERAL SIMULTANEOUS COCHLEAR IMPLANTATION IN CHILDREN UNDER 12 MONTHS OF AGE – SURGICAL OUTCOMES AND CONSIDERATIONS

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- 2- Department of Medical Imaging, Perth Children's Hospital, Perth, Australia
- 3- Department of Audiology, Perth Children's Hospital, Perth, Australia

OBJECTIVES

To assess whether the round window (RW) approach is surgically feasible in children under 12 months of age undergoing cochlear implantation (CI)

MATERIALS and METHODS

All children undergoing bilateral simultaneous CI under 12 months of age at a tertiary paediatric centre were reviewed. Routine preoperative workup included auditory brainstem responses testing, tympanometry, otoacoustic emissions, cortical auditory evoked potentials and 3T MRI scanning. Patients with syndromes or had abnormal temporal bone anatomy were excluded. Intraoperative findings were assessed including the degree of mastoid pneumatization and RW accessibility to electrode insertion. Postoperative findings, complications and implant performance including aided threshold and speech testing were assessed.

RESULTS

28 patients received a CI under 12 months of age. 12 patients were implanted at or below 7 months of age. The mean age of implantation was 9 months. 90% of patients were deemed to have mastoid pneumatization conducive to allow surgical access to the facial recess. RW electrode insertion was possible in 97% of ears. 2 patients had shallow ulceration over the magnet receiver site which settled with a weaker magnet. 2 patients had nasopharyngeal blood postoperatively. All patients had aided CI thresholds between 15-25dB from 250 to 8000Hz and Ling sound detection. There were no facial nerve stimulations or anaesthetic complications.

CONCLUSION

The RW approach is a safe option even for children implanted under 12 months of age. This has implications for expanding hearing and structure preservation to very young CI candidates to minimise trauma to the ear for potential future regenerative therapies.

TRIGONA HONEY IN ALLERGIC RHINITIS PATIENTS: ITS EFFECTIVENESS AS AN ADJUNCT THERAPY

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3- Department of Immunology, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

OBJECTIVES

This study is to determine the effectiveness of Trigona Honey (TH) or also known as 'Kelulut Honey' from a stingless bee as an adjunct therapy for patients with moderate to severe allergic rhinitis using clinical parameters; Total Nasal Symptom Score (TNSS) and Modified Lund-Kennedy naso-endoscopic score. Total IgE in both control and study group is also measured and analysed.

MATERIALS AND METHODS

This was an open-label randomized controlled trial on 64 subjects recruited from otorhinolaryngology clinic at two tertiary referral centres in the East Coast of Peninsular Malaysia from July 2017 to February 2018. The control group received standard care of treatment while the intervention group received standard care plus TH 189.33 mg/kg/day for 4 weeks duration. Total nasal symptom score (TNSS), Sinonasal Outcome Test Score (SNOT-22), Modified Lund Kennedy (MLK) were scored at start, week 4 and week 8 and analysed using repeated measure ANOVA.

RESULTS

There was significant improvement seen in time effect for TNSS and SNOT-22 in TH group at week 4 ($p < 0.001$). There was significant different in treatment effect ($p = 0.014$) and time-treatment effect ($p < 0.001$) in TH group compared to control group which patients showed lower MLK score in TH group. However, for total IgE level, there was no significant difference between the two groups.

CONCLUSIONS

Trigona Honey ingestion showed improvement in the symptoms of allergic rhinitis and endoscopy findings, therefore it could serve as an adjunct therapy for allergic rhinitis patients.

FP4_12

EFFECT OF ROUND WINDOW OPENING SIZE ON RESIDUAL HEARING PRESERVATION IN COCHLEAR IMPLANTATION

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OBJECTIVES

This study aims to compare the hearing preservation outcomes in cochlear implant surgery following slit versus full opening of the round window membrane.

MATERIALS AND METHODS

Seventy patients (mean, 26.3 years; range, 2-69 years) who underwent cochlear implantation via round window approach were included in the study. Thirty-five cases were prospectively enrolled for cochlear implantation via the open round window approach between August 2018 and January 2019. Thirty-five patients who underwent cochlear implantation prior to August 2018 via the slit round window opening were frequency matched by sex, age, and pure tone audiometry (PTA) thresholds and were retrospectively enrolled. Preoperative and postoperative thresholds were obtained. The percentage of hearing preservation was computed using the HEARING Network formula and classified into complete, partial, and minimal hearing preservation. The results between the two groups were compared and analyzed.

RESULTS

The rate of complete hearing preservation in the open group was statistically significant ($p=0.006$) at 80% ($n=28$) compared to 48.6% ($n=17$) in the slit group.

CONCLUSION

The open round window technique results in significant residual hearing preservation compared to the slit round window technique at 3 months postoperatively.



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ABSTRACTS – POSTER

Audiology and Speech

POSTER # P-161

THE CORRELATION BETWEEN REACTIVE OXYGEN SPECIES WITH NOISE INDUCE HEARING LOSS IT AUTOMOTIVE VOCATIONAL SCHOOL STUDENT

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BACKGROUND

The used of machine practical in automotive students causes noise and threatens the students auditory. Noisy causes hearing loss known noise induce hearing loss (NIHL) can be permanent, so prevention efforts are very important. Noise exposure that over the threshold results in mechanical damage and metabolic disorders causing changes in calcium homeostasis, cell oxidative stress and an increase in free radical production known as Reactive Oxygen Species (ROS).

METHODS

This study is an observational research with approach cross sectional and analytical. This study held at the ORL-HNS OPD Division of Neurotology, Clinical Pathology Installation and Central Installation of Network Bank Biomaterials at Soetomo General Hospital Surabaya in May 2018.

RESULTS

The range of age population is 17-20 years, the measurement of ROS levels in plasma with NIHL obtained a minimum value of 3.00 ng/ml and a maximum value of 9.70 ng/ml with a mean (SD) of 4.4894 ng/ml (1.7148). The value of ROS without GPAB obtained a minimum value of 0.86 ng/ml and a maximum value of 2.81 ng/ml with a mean (SD) of 2.1047 ng/ml (0.5790). The results of Mann-Whitney test demonstrated that significantly between plasma ROS levels and NIHL ($p < 0.05$).

CONCLUSION

There is a correlation between plasma ROS levels and NIHL in automotive engineering vocational school students, which means that ROS levels in students with NIHL are higher than ROS levels in students without NIHL.

POSTER # P-162

THE CORRELATION BETWEEN TNF α VALUE WITH HEARING TRESHOLD AT 4000 HERTZ AFTER EXPOSURE TO GUNFIRE OF NATIONAL POLICE SCHOOL IN EAST JAVA

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ABSTRACT

BACKGROUND:

The evidence in acoustic trauma after gunshot exposure in students of the National Police School are prevalent. Prevention has been done by using the earplugs, but it was not effective so that other methods are needed to prevent the occurrence of acoustic trauma. Tumor Necrotic Factor α (TNF α) is chemotaxis factor with function to pull monocyte move to inflammation area and make inflammation cell accumulation. This study aimed to show the correlation between levels of TNF α and hearing threshold at 4000 Hz after the gunshot exposure.

METHODS:

This study is observational analytic with a retrospective cross sectional approach using secondary data of medical records of the National Police School (NPS) students in east Java, batch 2017/2018. The samples were selected by simple random sampling.

RESULT:

Out of the 50 students, the youngest was 18 years old and the oldest was 21 years with an average of 19.62 years. All research samples are male. Decreasing the hearing threshold frequency at 4000 Hz indicated as acoustic trauma was found in 28 students (56%), the minimum hearing threshold frequency at 4000 Hz 5 dB and maximum of 65 dB with an average of 31.52 dB. The minimum value of TNF α was 11,91 ng/ml and maximum was 407,87 ng/ml with an average of 164,74 ng/ml. Hearing loss complaints were found in student (2%). Complaints of tinnitus and vertigo were not found. Statistical tests with Pearson correlation between TNF α levels in serum with a hearing threshold value at 4000 Hz frequency showed that the SD 116,60 and $p=0.17(p>0.05)$.

CONCLUSION:

There was no correlation between TNF α levels and the hearing threshold at 4000 Hz frequency after gunshot exposure on East Java NPS students.

POSTER # P-163

ASSESSMENT OF HEARING IMPAIRMENT IN CHILDREN AT TERTIARY HOSPITAL, YANGON

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OBJECTIVE

To assess the hearing impairment in children who came to the tertiary hospital, tarmwe, yangon

MATERIALS AND METHODS

From September 2017 to December 2018, hospital based descriptive study was done in the children who came to hospital by themselves or referred from health care centers or referred from paediatricians to paediatric audiology unit, ORL-HNS hospital, Yangon. Study population included 889 children with or without hearing impairment. After detailed history and otological examination was done, audiological assessment was done firstly screening with OAE, AABR, screening PTA and tympanometry and confirmed by diagnostic ABR and ASSR according to age group A, group B, group C and group D.

RESULTS

From this study, the prevalence of hearing impairment had 56% among 889 children who came to hospital. Hearing impairment in group C and group D had 74.5% and 75.1% and 36.7% in group B and 11% in group A respectively. The most common type of hearing loss was sensorineural hearing loss which is 37% and 29% was conductive hearing loss. All risk factors in this study except history of ototoxic drugs were associated with hearing impairment. P-value was <0.05 and it was significant. There was no association between sex distribution and hearing impairment. After getting the diagnosis, for sensorineural hearing loss, hearing aids were given for 68 children and cochlear implants were done for 17 children. The rest of patients who are not candidate for hearing aids and cochlear implants were advised to go to school for deaf.

CONCLUSION

Neonatal hearing screening is the major role in early detection of hearing impairment. If hearing impairment detected early, it can prevent the impairment of speech and language development. If the risk factors related to hearing impairment are preventable, early awareness and assessment of hearing in children should be done to get diagnosis in time. Late diagnosis may lead to delay in speech and language and difficulty in communications, learning and social behaviours. So, from this data and research, it was concluded that hearing impairment in children is a main issue to detect early and to prevent communication disabilities.

POSTER # P-164

DEVELOPMENT OF INDONESIAN NATURAL SPEECH SYNTHESIS SYSTEM FOR CHILDREN WITH DELAYED SPEECH

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OBJECTIVES

As of today, about 16.8% of the total number of Indonesian has hearing impairment to profound deafness, which most of them are children from 7 to 9 years old. Because of this, the children also have delayed speech compared to normal hearing children. Furthermore, speech therapist currently available are limited and insufficient to serve. These children who have hearing impairment cause the delay in speaking ability. In this paper, we outlined the development of a multimedia tool for learning the pronunciation of the children with delayed speech.

MATERIAL AND METHODS

Firstly, we constructed natural and expressive Indonesian speech corpus based on the phonetically balanced in which contains speech database and its transcription. The sentences were selected from colloquial conversations. We, then, hired ten professional radio news readers to utter the natural speech corpus and four professional theater artists for the expressive speech corpus. As a result, the Indonesian speech corpus consists of more than 18 hours audio, hand-labeled and segmented.

RESULTS

We used Hidden Markov Model (HMM) based to generate acoustical features of speech based on the training data of fundamental frequency, mel-cepstrum and prosody. The generated speech utterances were then evaluated subjectively and objectively to determine its naturalness. We do some variation in the number of sentences and the type of sentences which used in the training part.

CONCLUSION

The training results showed that the new design of multimedia tool for learning of the children with delayed speech patients was capable to use as the alternative for hospitals for the therapy of the delay speech patients. In the on-going research, we keep monitoring the progress of the delayed speech patients with speech therapists compared to our proposed Indonesian speech synthesis to measure the effectiveness of the proposed system.

POSTER # P-165

SENSITIVITY AND SPECIFICITY OF THE HEARING HANDICAP INVENTORY FOR ELDERLY-SCREENING THAI VERSION

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OBJECTIVE

To evaluate sensitivity and specificity of The Hearing Handicap Inventory for Elderly-Screening (HHIE-S) Thai version

MATERIALS AND METHODS

Diagnostic study in Thai people aged 60 years or older who visited chulalongkorn hospital during 1 December 2016 – 30 November 2017. The Hearing Handicap Inventory for Elderly-Screening (HHIE-S) Thai version individual questions was completed by participants themselves and then Pure-tone air-conduction audiometry was conducted in a soundproof room and performed by certified audiologists. pure-tone averages (PTA) threshold was calculated using pure-tone averages (PTA) of responses to 500, 1000 and 2000 Hz. a total HHIE-S score of 8 is defined as indicating the presence of hearing handicap; therefore, we used this cutoff point to evaluate sensitivity and specificity of the HHIE-S Thai version against pure-tone average ≥ 40 decibels hearing level (dBHL).

RESULTS

The 220 participants were included in this study which divided into 154(70%) females and 66(30%) males with mean age of 69.24 ± 7.21 years. For the detection of moderate or worse hearing loss (PTA ≥ 40 dB), the HHIE-S cut-point score of >8 had a sensitivity of 75.8% and a specificity of 68.5% with PPV of 29.8% and NPV 94.1%

CONCLUSIONS

The HHIE-S Thai version is considered to be a reliable and valid screening tool to identify moderate hearing loss in older adults in Thailand. The HHIE-S Thai version has the potential to be extended to a large number of under-tested older adults in a country which is encourage that group of patients to have proper diagnosis and intervention

POSTER # P-167

A COMPARISON OF THE HUMAN VOICE (“BAAH”) TEST AND THE AUTOMATED AUDITORY BRAINSTEM RESPONSE IN DETECTING NEONATES WITH HEARING LOSS IN A COMMUNITY SETTING

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OBJECTIVES

To assess the usage of the Human Voice “Baah” Test compared to the AABR in detecting hearing loss of neonates in the community setting.

MATERIALS AND METHODS

The study will be retrospective cross-sectional, the population consisting of newborns less than 1 month old screened by nurses at a testing facility in Malolos, Bulacan. Only infants who completed both the Baah Test and the AABR at the time of testing will undergo review of records and be included in the study.

RESULTS

For infants who passed hearing screening in at least one ear, 96% (193 infants) correlated with the results of Baah testing. Only 1% (2 infants) had no observable response. For bilateral refer results on the AABR, 4 out of 6 correlated with the Baah Test, while 2 out of 6 exhibited a response despite bilateral refer results.

CONCLUSION

In this sample of trained health professionals administering the Baah Test and the AABR screening test, 98% of infants showed consistent results between the two methods of screening.

Facial Plastic Reconstructive Surgery

POSTER # P-041

AVOIDING AND MANAGING UNFAVORABLE RHINOPLASTY RESULTS

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ABSTRACT TEXT

There is a high demand for rhinoplasty in almost all around the world. Although techniques used are almost the same, results and acceptance of the results may vary in different cultures. Preoperative evaluation is critical to understand the desires of the patient. Analysis of photos and computer image editing before rhinoplasty may be helpful if done regularly.

The unfavorable outcome in rhinoplasty most frequently is the result of errors in surgical technique. Many of our referral unhappy or dissatisfied revision cases have been to the plastic surgeon for their primary assessment or their first surgery and referred to us for both functional and aesthetic correction of their iatrogenic deformities after having had their primary surgery by the plastic surgeon. Additionally, there are usually psychological issues that need to understand and deal with to achieve a satisfactory outcome. The nasal tip is the most prominent part of the face. It is both aesthetically and functionally significant. So, it should be the primary goal of the surgeon to achieve a perfect tip. Many sutures and grafts were described up to now. I aimed to discuss the advantages and disadvantages of most famous techniques, Nasolabial angle is the point of interest of many patients so the surgeons Targeting to adjusting it precisely. The dorsum is the second significant area in rhinoplasty. Various vital aspects must be considered when improving the dorsum. Culture, personal desires and function should be kept in mind while reforming the dorsum.

The external approach is applied for most revision cases, which offers several advantages: direct visualization of underlying anatomic structures, adequate diagnosis of the existing deformity, and exact placement of grafts and implants. The treatment is also multifactorial: Osteotomy and rasp techniques are used to realign; (intact, crushed, diced, or morselized) cartilage grafts are used to fill in, camouflage, smooth out, elevate, and contour different defects. The best form of treatment is prevention. This requires an understanding of the complex anatomy and physiology of the nose

Outcome Objectives: Understanding the importance of preoperative evaluation and computer image editing before rhinoplasty, Understanding the advantages and disadvantages of various tip sutures and grafts, Learning the perfection of the dorsum.

POSTER # P-042

**SUPRACLAVICULAR ARTERY ISLAND FLAP RECONSTRUCTION FOLLOWING
EXCISION OF A GIANT CAVERNOUS HEMANGIOMA OF THE FACE**

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OBJECTIVES

To present the use of a supraclavicular artery island flap as a viable option for the reconstruction of a large cervicofacial defect following extirpation of a hemifacial cavernous hemangioma.

MATERIALS AND METHODS

Design: Case Report
Setting: Tertiary National University Hospital
Patient: One

RESULTS

A 43 year-old female presented with a 11 x 15 cm cervicofacial defect following excision of a large cavernous hemangioma. Pre-operative tumor embolization precluded the utilization of a possible anterolateral thigh free tissue transfer to cover this defect. A supraclavicular artery island flap was performed on this patient due to its ease of harvest, good color match, wide arc of rotation, and minimal donor site morbidity. Post-operatively, the patient developed multiple sites of dehiscence which were mostly managed conservatively. The patient also presented with keloid scars 3 months post-operatively. Plans for secondary surgery with scar revision, commissuroplasty, and intralesional steroid injections are currently being discussed with the patient.

CONCLUSION

The supraclavicular artery island flap is a good alternative to free tissue transfer for cervicofacial defects, especially in low-resource environments or in patient populations where free tissue transfer is contraindicated. Advantages of the supraclavicular artery island flap include its cost-effectiveness, good color match, wide arc of rotation, and ease of harvest.

POSTER # P-043

CONCHAL CARTILAGE: BEYOND TIP CONTOURING IN REVISION RHINOPLASTY

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INTRODUCTION

Alloplastic materials remain the primary choice in nasal dorsal augmentation but they are also the most common cause of revision rhinoplasty. Autologous cartilage grafts are therefore essential in safe and timely revision surgery. The complications and insufficiencies related with septal and rib cartilage grafts often restricts their utility. Conchal cartilage grafts, however, are safely obtained, readily available and easily contoured. We present the efficient use of bilateral conchal cartilage grafts in Asian revision rhinoplasty.

OBJECTIVE

To demonstrate the maximal use of bilateral conchal cartilage grafts and their harvest, preparation intraoperative design and postoperative results in revision rhinoplasty of Asians with mild to moderate nasal deformities.

METHODS

The 4 patients in the study conducted in a tertiary hospital in the Philippines (Ospitalng Maynila Medical Center) underwent revision rhinoplasty using bilateral conchal cartilage grafts. Cases were as follows: (1) iatrogenic saddle nose deformity after septorhinoplasty, (2) silicon implant infection, (3) infected silicon oil injection (4) unsatisfactory primary rhinoplasty. On follow up, there was no incidence of hematoma formation, infection, graft resorption and displacement. All patients were satisfied with the aesthetic and functional outcome.

CONCLUSION

The flexibility and tensile strength of conchal cartilage allows for correction of both nasal dorsal structure and tip contour. With efficient harvesting and intraoperative application, these grafts are sufficient for correction of mild to moderate saddle nose deformities, infected silicon oil injections and alloplastic implant rejection. Bilateral conchal cartilage grafts provide long term structural stability and favorable aesthetic outcomes in Asian revision rhinoplasty.

POSTER # P-044

MODIFIED MIDLINE REDUCTION GLOSSECTOMY FOR MACROGLOSSIA WITH MANDIBULAR TORI CONGENITAL: A RARE CASE

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BACKGROUND

An enlarged tongue (macroglossia) in dentomusculoskeletal deformities creates masticatory, speech, and airway management problems. Understanding the signs and symptoms of macroglossia will help identify those patients who could benefit from a reduction glossectomy (reduction of tongue size) to improve function, esthetics, and treatment stability. The aim of this poster is to report our case about modified technique of midline reduction glossectomy in macroglossia with mandibular tori at Maxillofacial Surgery Universitas Indonesia and then reporting the results.

MATERIALS AND METHODS

Reported rare case, five month old boy with congenital disorder macroglossia with mandibular tori, that the syndrome still has not been found until now. Patient underwent primary tracheostomy because of the upper airway obstruction, removal tori and midline reduction glossectomy with modified kole technique that intended for volume reduction in oropharynx.

Kole proposed an anterior triangular wedge excision of the tongue. In our case, the initial anterior wedge excision following the Kole technique provided adequate reduction in tongue length but width reduction was unsatisfactory. Hence, we modified the technique by extending the apex of the anterior triangular wedge to the posterior third midline providing additional and adequate reduction in tongue width.

RESULTS

Our modification of the Kole technique proved to be viable as the postoperative results were considered satisfactory. There was minimal blood loss. Tongue volume was uniformly reduced in both length and width enabling mouth and jaw closure while tongue sensation and mobility were preserved. Appearance, feeding, and speech intelligibility were markedly improved although the follow up which was confirmed by FEES (Functional Endoscopic Evaluation of Swallowing) shows hiposensitivity was still found, and it same as reported by Wang.

CONCLUSION

In management of reduction glossectomy can be modified accordance with the clinically condition for each patient. Future application of this modification may demonstrate its usefulness.

POSTER # P-045

REVISION RHINOPLASTY: OUR EXPERIENCE

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ABSTRACT

Rhinoplasty is one of the most difficult procedures of all cosmetic facial surgery. We present a series of three cases in which revision rhinoplasty was done. The first case was a beautiful girl, following trauma to her nose, silicone implantation was done by plastic surgeon. We planned for external rhinoplasty approach to remove the implant which was found to be impinged with a screw at root of nasal dorsum. The second case was crooked nose, with history of primary rhinoplasty done elsewhere with no records, revision surgery was done and patient was satisfied. 3rd case was a Young female, with maldeveloped nasal bone and maxillary bones, she initially underwent dorsal augmentation and later in revision surgery, lateral osteotomies and further augmentation with diced rib cartilage wrapped in temporalis fascia was done. All the three cases patients were well satisfied with the results. But however as surgery is performed on scarred facial structure, it brings with itself a limitation in the overall success, as these patients tend to often have unrealistic expectations, which sets the stage for failure even when an acceptable result is achieved.

CONCLUSION

First attempt is always the best, hence no harm should be done to the patient while doing so.

POSTER # P-046

TROUBLE SLEEPING IN DEVIATED NOSE DEFORMITY – OUTCOME OF SEPTORHINOPLASTY

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OBJECTIVES

To evaluate outcome of septorhinoplasty in deviated nose deformity with trouble sleeping using Nasal Obstructive Symptoms Evaluation (NOSE) scale

MATERIAL AND METHODS

A total of 40 patients who met the criteria of inclusion and exclusion were taken up in this study. Study design & period - One year cross-sectional study. During the study period, the patients were evaluated, symptoms were noted and scored according to NOSE scale prior to septorhinoplasty and after a week of postoperative period. Trouble sleeping score in NOSE scale and total NOSE scale score were evaluated statistically by Mc Nemar test, Paired t test, Chi-square test and Independent t test.

RESULTS

In our study, the total NOSE score preoperative septorhinoplasty with mean score of 11.43 ± 2.69 and postoperative septorhinoplasty with mean score of 3.28 ± 1.52 . It was noted that NOSE score for Trouble sleeping [$P=0.001$] and total NOSE score [$P=0.001$] preoperative septorhinoplasty in comparison with postoperative septorhinoplasty shows their significance.

CONCLUSION

Deviated nose deformity affects the quality of life of patients by causing nasal congestion, nasal blockage, trouble in sleeping and aesthetic appearance. Quality-of-life (QOL) being in relation to health of the nose. Our study assesses improvement in nasal symptoms and quality of life after septorhinoplasty.

POSTER # P-048

**SURGICAL MANAGEMENT OF GROSSLY DEFORMING VASCULAR LIP MASS USING
ULTRASONIC SCALPEL – A CASE SERIES**

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Vascular malformations present as a common congenital anomaly that is aesthetically distinct and can pose as a surgical challenge when seen in the lips. Of all vascular malformations, varix or venous malformation is the most common. Management includes surgery with or without embolization, sclerotherapy, medications and some advocates observation for small, infantile hemangiomas. This case series will cover four patients with grossly deforming vascular malformations of the lip that were not responsive to medical management who underwent surgical excision using ultrasonic scalpel to lessen the risk of hemorrhage. For all four cases, Lidocaine with Epinephrine in 1:100,000 dilution was used as local anesthesia and hemostasis. To further lessen the risk of bleeding and to help maintain a clean surgical field especially for those with large masses, tacking sutures on surrounding borders of the mass was used in Case 1, whereas Satinsky vascular clamps were used on Cases 2 and 4, with an addition of facial artery ligation. For Case 3, mass was completely excised using the ultrasonic scalpel solely due to its small size and favorable location. Only minimal bleeding were noted and none require blood transfusion. All patients were discharged with improved condition with little to no surgical marks on follow-up, and are satisfied with the cosmetic outcome of the procedure. Ultrasonic scalpel proves to be satisfactory in the management of vascular lip masses aside from its previously documented usefulness in thyroid and other head and neck surgeries. Ultrasonic scalpel is a functional instrument in the surgical management of resectable vascular lip mass. For large lesions, bleeding can be further decreased through different hemostatic techniques such as Satinsky clamps and Tacking sutures surrounding the mass, and ligation of the feeding vessel if feasible.

POSTER # P-049

SINGLE-STAGE AURICULAR RECONSTRUCTION USING POSTAURICULAR PULL-THROUGH SUBCUTANEOUS FLAP

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INTRODUCTION

Reconstruction of the auricle poses a great challenge in otologic field. It is owing to its 3-dimensional anatomical complexity. There are many surgical techniques used in reconstructing the auricular defect. We will be describing a versatile technique in reconstructing defect at lateral surface of the auricle following resection of basal cell carcinoma at middle third of auricle using postauricular pull-through subcutaneous flap.

SURGICAL TECHNIQUE

The primary tumour was resected and frozen section was sent to ensure adequate margin clearance. The size of the defect was drawn at the donor site at postauricular region. A window was created at medial aspect of the primary tumour by removing a strip of conchal cartilage. The postauricular flap was tunneled towards lateral surface of auricle through the created window. The flap was accommodated the contour of the defect and closed with non-absorbable sutures. The donor site at postauricular region was closed primarily by means of T-plasty.

OUTCOME

This patient had been followed up for 6 months postoperatively. The flap maintained the contour of the auricle with good aesthetic results. The donor site wound healed well. Patient did not develop any complications.

CONCLUSION

We propose postauricular pull-through subcutaneous flap to be considered in reconstructing defect at middle of lateral surface of the auricle as it is done as a single-stage procedure, preserving the contour of the auricle results in excellent cosmetic outcome, choice to reconstruct large defect and the donor site can be closed primarily.

POSTER # P-050

FREE FLAP RECONSTRUCTION ON BASAL CELL CARCINOMA OF THE AURICLE

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INTRODUCTION

Basal cell carcinoma (BCC) of the auricle is rare. BCC accounts for around 30-40% of auricle cancer, which malignancy of auricle only reaches 6% of all cutaneous malignancies. BCC is a locally invasive but it can cause significant local destruction with disfigurement if neglected or treated inadequately. BCC of conchae is difficult to have an operation and to apply suture on that anatomical area, that it is an unusual location.

CASE REPORT

A 78 years old man with a black mass lower part of the left ear that has been grown since 3 years ago. Initially, it was a small mass resembling corn seed and getting bigger. It was extended from cavum of conchae to tragus with size 2 cm x 1 cm x 0.5 cm, irregular surface, hard consistency, immobile, well defined. Biopsy revealed BCC. The patient was performed excision with margin 3-4 mm of the normal skin. The defect of skin was reconstructed by using free flap from thigh skin. After one month the wound was clean, there was no sign of flap tissue necrosis and relapse.

CONCLUSION

Basal cell carcinoma which is situated at the conchae auricle is an unusual condition. When it is small in size, it is important to establish BCC early, before reaching large size enough to disturb nearby structures, so that can make better prognosis. By using free flap reconstruction from the thigh skin shows good result to close post excision skin defect.

POSTER # P-174

RECONSTRUCTION OF POST-BURN ANTERIOR NECK CONTRACTURES USING A BUTTERFLY DESIGN FREE ANTEOLATERAL THIGH PERFORATOR FLAP

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OBJECTIVES

In order to optimize like-for-like reconstruction of the anterior neck, use of wide, thin and long flaps such as the anterolateral thigh (ALT) perforator flap have been reported with promising results. Of note, some patients appear to have a tendency towards severe scar contractures, which may be contributed by the greater extent of inflammation during wound healing. We report our experience at four years' follow-up after secondary reconstruction of severe, anterior neck burn contractures in two patients by harvesting the ALT flap with a butterfly design.

MATERIALS AND METHODS

The ALT is designed to match the post-resection defect with previously identified perforators located in the middle of the flap. Because of the butterfly shape design of the ALT flap, the donor site can be closed in V-Y fashion at both proximal and distal ends.

RESULTS

The patients presented with Grade 2 and 3 anterior cervical contracture (according to Makboul's classification system) following childhood burns involving 40 to 45% TBSA and both had post-excision defect of burn scars resurfaced with butterfly ALT flap. At four years' follow-up, neck extension had improved from 83-900 pre-operatively up to 1200 without recurrence of scar contracture.

CONCLUSION

This technique not only provides adequate wound resurfacing of the burned neck and surrounding areas but also, provides good neck extensibility by addressing both the anterior and lateral aspects of the scar defect simultaneously. Moreover, such a flap design contributes to reduce tension on wound edges and thus, the risk of contracture recurrence in neck burns reconstruction.

Head & Neck Surgery

POSTER # P-003

**METASTATIC PAPILLARY THYROID CARCINOMA PRESENTING AS FROZEN
SHOULDER: A CASE REPORT**

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OBJECTIVES

To report and discuss a peculiar case of a 63-year old male who consulted for left shoulder immobility and was diagnosed as a case of metastatic papillary thyroid carcinoma.

MATERIALS AND METHODS

The file record of the patient was reviewed. The clinical course, imaging, diagnostics, and pathological findings were discussed as well as the pathophysiology of the disease and its management.

RESULTS

The patient is a 63-year old male who presented with left shoulder immobility. Radiographic examinations showed a lytic humeral mass and its biopsy revealed a well-differentiated carcinoma consistent with a thyroid primary. The patient underwent total thyroidectomy with central neck dissection, RAI, and then wide excision of humeral mass with application of prosthesis. The official histopathology report for the thyroid and humeral mass showed papillary thyroid carcinoma and metastatic carcinoma consistent with papillary thyroid carcinoma, respectively.

CONCLUSION

Diagnosis of a thyroid carcinoma can be made despite no evidence of a primary tumor. It is important to consider a primary thyroid malignancy in cases of new bone lesions where there is no evident primary source of malignancy since differentiated thyroid carcinomas have a propensity to metastasize to the bones. A multidisciplinary team of health care professionals is needed to properly manage such cases.

POSTER # P-008

ASSOCIATION BETWEEN THE USE OF SMOKELESS TOBACCO AND CANCER OF GINGIVOBUCAL SULCUS

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BACKGROUND

Although oral cancer accounts for 2.1% of all cancer cases globally, it is surfacing as a major public threat in India. Oral cancer figures among three most common types of cancer in the Indian subcontinent, with an incidence rate of 30%. The increased availability and use of smokeless tobacco and betel-quid in the recent years have further aggravated the situation. The scarcity of reports on the contribution of such risk factors in oral cancer incidence remains a prime concern. In this perspective, the association between smokeless tobacco and cancer of gingivobuccal sulcus was investigated.

METHODOLOGY

The medical records of 249 patients with cancer of gingivobuccal sulcus, attending the BRAIRCH, AIIMS, New Delhi, were retrospectively examined from 2009-2016. Demographic and clinical data including history of addictions (smoking, smokeless tobacco) were collected and patients were staged according to the 8th AJCC Cancer Staging (2017).

RESULTS

Smokeless forms of tobacco were more prevalent among the patients (50.7%), in contrast to smoked tobacco (19.53%), while 29.77% were reported to consume both forms. A higher proportion of patients with smokeless tobacco addiction were diagnosed with advanced stages of cancer (56.9% in Stage III/IV). These rates were even higher (65.6%) in patients using both smokeless and smoked tobacco.

CONCLUSION

A strong association was observed between smokeless tobacco and gingivobuccal sulcus cancer, particularly in patients who kept the tobacco in the buccal vestibule after chewing, to suck, sometimes overnight. Elucidating the potential risk factors can be a key approach to design effective intervention programs to combat the growing pandemic of oral cancer in India.

LATERAL PHARYNGOTOMY APPROACH: A CASE REPORT

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BACKGROUND

Fish bone impaction is one of the commonest ENT emergencies. The majority are partially intraluminal which allows visualisation and removal of the fish bone with rigid or flexible oesophagoscopy. This also depends on the site of impaction, configuration of the foreign body and surgeon's preference. On the contrary, extraluminal foreign bodies pose a challenge in diagnosing and retrieving them.

CASE PRESENTATION

This report reviews the history and clinical outcome of an 83 year old lady who presented with odynophagia after eating fish. A non-contrast CT neck and mediastinum revealed a curvilinear foreign body within the proximal oesophagus. She underwent rigid oesophagoscopy thrice with interval CT scans but the foreign body could not be seen intraoperatively. The extraluminal, intramural foreign body was finally removed via a transcervical left lateral pharyngotomy approach. The postoperative course was complicated by laryngeal oedema that required re-intubation, swallowing dysfunction requiring nasogastric tube feeding and left vocal cord palsy, both of which resolved completely within 6 months.

CONCLUSION

Preoperative CT is important to plan the surgical approach when extraluminal foreign bodies are suspected. Extraluminal foreign bodies should be managed with extreme caution due to the associated life threatening complications. Although open neck exploration is challenging, it still remains the method of choice for removal of such foreign bodies. The attendant risks and the post-operative course must be explained in detail to the patient so that they can make an informed decision.

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BACKGROUND

For the treatment of laryngeal and oropharyngeal cancer, different treatment options, such as transoral laser microsurgery, open surgical techniques, and primary radiotherapy, are under discussion. In this context, the aim of the present study was to describe oncologic results and complication rates of transoral laser microsurgery in treatment of early-stage laryngeal and oropharyngeal cancer (T1/T2).

OBJECTIVE

The purpose of our study was to assess the efficacy and safety of TLM for the treatment of early oropharyngeal carcinomas at Ho Chi Minh city ENT hospital.

MATERIALS AND METHODS

This is a prospective cohort study in Ho Chi Minh City Ear Nose Throat Hospital included early-stage laryngeal and oropharyngeal cancer (T1/T2) patients scheduled to undergo transoral laser microsurgery from January 2016 until March 2019. Data on demographics, site and extent of disease, treatment, complication and early outcome were collected and analyzed.

RESULTS

120 patients of early-staged laryngeal and oropharyngeal cancer (90 glottic carcinomas, 19 tongues, 5 soft palates, 4 tonsils and 2 posterior pharyngeal walls) were included in this study. 89.2% patients were male and 10.8% were female. The mean age was 54.8 years (± 10.6 years). 82.5% tumours are T1 and 17.5% T2. The bleeding complications occurred in 4 patients, 3 subcutaneous emphysemas. The most frequent complication of TLM was bleeding (3.3%), the second is subcutaneous emphysema (2.5%). 30% of patients had normal voices and a further 62.5% had only mild or moderate voice change. At their last followup, no patients had any difficulty in breathing or swallowing. During the mean follow-up period of 8 months (range 1–18 months), 4 patients (3.3%) showed local recurrence, and the laryngeal preservation rate is 100% for T1/T2 tumours.

CONCLUSION

TLM is a safe, minimally invasive and effective method in the treatment for early laryngeal and oropharyngeal cancer.

CERVICAL OSTEORADIONECROSIS MIMICKING RECURRENCE OR METASTASIS OF NASOPHARYNGEAL CARCINOMA AS A LATE COMPLICATION OF RADIOTHERAPY: A CASE REPORT

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INTRODUCTION

[Nasopharyngeal carcinoma](#) is a [neoplasm](#) commonly found in South-East Asia, and radiotherapy remains the mainstay of treatment. A rare complication of this treatment is the development of osteoradionecrosis, which involves the cervical spine. This case represents a diagnostic and therapeutic challenge with differentials of tumor recurrence or osteoradionecrosis

CASE REPORT

We describe 57-years-old female with history of nasopharyngeal carcinoma. Patient was disease free and remained well except for a small area of crust over the roof of nasopharynx for 20years post radiotherapy when she started to develop progressive neck pain and weakness till she needed to be fed via NG-tube and use wheel chair for a month prior to diagnosis. Nasoendoscopy showed extensive crust and slough over the whole nasopharyngeal wall. MRI suggested nasopharyngeal enhancing masses eroding clivus and extending around C1C2 likely recurrent tumour. PET-scan suggesting metastatic lesion. CT-scan suspected osteoradionecrosis. The patient underwent extensive desloughing and biopsy of nasopharynx exposing areas of the clivus and C1C2. The histological study showed inflamed granulation tissue and necrosis. She was treated conservatively with pentoxifylline, tocopherol, quinolone, and hyperbaric oxygen. After 2 months of conservative treatment there was sign of healing by granulation and by 4 months only a very small area of bone remained exposed. The pain slowly subsided. She gained strength and didn't need wheel chair anymore after 1,5 years.

CONCLUSION

Osteoradionecrosis progresses slowly and can be treated conservatively. Patient must be regularly followed up to look for cervical complications as a result from irradiation, to prevent devastating outcome.

SUBMANDIBULAR CAVERNOUS HEMANGIOMA: DIFFERENTIAL DIAGNOSIS OF SUBMANDIBULAR SIALOLITHIASIS

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Cavernous hemangiomas are composed of dilated, blood-filled spaces lined by flattened endothelium and calcification is common. Most cavernous hemangiomas require surgery since they do not show a tendency to regress. So they needed surgery. A case of a 35 year old woman with cavernous hemangioma affecting the submandibular region that clinically simulated sialolithiasis.

Key Words: cavernous hemangioma, sialolithiasis, submandibular region

INTRODUCTION

Although hemangioma is a relatively common lesion in the head and neck, it is rarely associated with phlebolith in the submandibular region. Due to the rarity of these tumors and unfamiliar presentation, inaccurate preoperative diagnosis and inappropriate treatment planning are common (1).

CASE REPORT

A 35-year-old female complaining of intermittent slightly painful swelling in her right neck for 6 years applied to our clinic. She was suffering more often for 6 months. The swelling was the same during eating but pain was increasing. On her physical examination we realized a 2 × 2-cm soft mass situated in the right submandibular region. It had pain with palpation. The overlying skin was slightly elevated, normal-colored. The wharton's duct was healthy with palpation intraorally. Cervical ultrasound was performed. Submandibular suppurative lymphadenitis was suspected. Computed tomography (CT) showed calcified foci within the enlarged right submandibular lymphadenitis / lymphadenopathy (Figure 1) and histopathological sampling is recommended. The result of trucut biopsy was negative for malignancy and reactive lymphoid cells.

The submandibular gland excision was planned. Complete blood count and serum biochemistry were performed for preoperative anesthesia approval. The results were within normal limits except HBs Ag. HBs Ag was highly elevated.

Approximately 8 cm skin incision was made about 3 cm below the marginal mandible. When the area was reached, 2 cm encapsulated view purple reddish colored mass was seen by superomedial side of the gland and gland was healthy. The mass was surgically removed. There wasn't any unusual bleeding during surgery. The specimen was sent for histopathologic examination. Microscopically, the lesion showed large cystically dilated vessels with thin walls (Figure 2), endothelial cells immunoreactive with CD 34 (Figure 3). Focal calcification was present. The lumina were filled with blood cells.

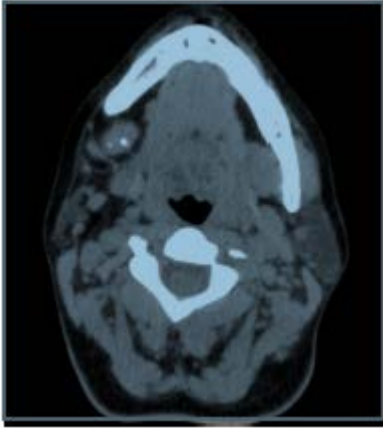


Figure 1. Axial contrast-enhanced computed tomography demonstrates calcified foci within the enlarged right submandibular lymphadenitis / lymphadenopathy.

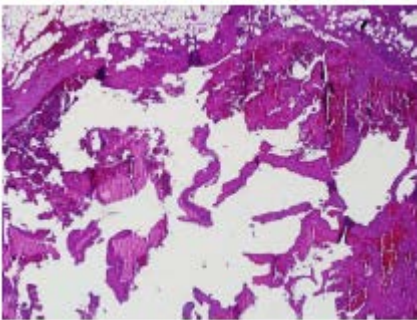


Figure 2. Microscopic views of the cavernous hemangioma large cystically dilated vessels with thin walls (hematoxylin & eosin $\times 4$)

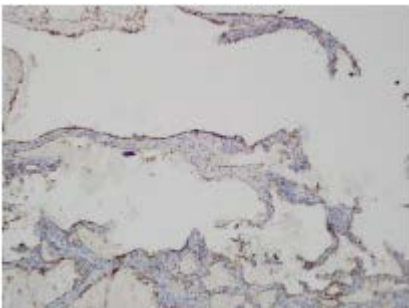


Figure 3. Microscopic views of endothelial cells immunoreactive with CD 34 (CD 34 $\times 10$)

DISCUSSION

Hemangiomas are benign vascular lesions and can occur in mesenchymal tissue in any part of the body including skin, muscle, bone, orbit. Most hemangiomas are superficial lesions that have a predilection for the head and neck region. There are many types of hemangiomas; cavernous hemangioma is the most common type, followed by lobular capillary hemangioma, arteriovenous hemangioma, and venous hemangioma. Most cavernous hemangiomas remain stable over time, and malignant transformation does not occur (2). Adult salivary gland hemangiomas are of the cavernous type, while infantile hemangiomas are usually capillary (3).

Hemangiomas occur twice as often in females as in males. More than 90% of cases present before the fourth decade of life (4). It is predominant in females and has an observed left-sided preference (5), in our case the mass was on the right side.

Hemangiomas are the most common salivary gland masses in childhood. They occur predominantly in the parotid gland, but they are rarely reported in the submandibular and sublingual glands (6). But in our case the lesion was in submandibular area but easily separated from the submandibular gland.

Cavernous hemangioma should be included in the differential diagnosis of a swelling in the submandibular region.

POSTER # P-013

TRANSORAL LASER SURGERY EXCISION OF SYNOVIAL SARCOMA OF THE HYPOPHARYNX

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OBJECTIVES

Synovial carcinoma is a very rare and slow-growing malignant tumor which arises from mesenchymal precursor stem cells. It is estimated to comprise about 3 to 9% of head and neck tumors and has an even lower incidence in the larynx and hypopharynx. We present a case of a 15-year-old male diagnosed with synovial sarcoma arising from the hypopharynx treated by surgical excision.

MATERIALS AND METHODS

The patient presented with dysphagia and hoarseness for more than 6 months. Physical examination showed a cystic hypopharyngeal tumor on the left with concomitant ipsilateral arytenoid swelling. Biopsy was done through direct laryngoscopy and microlaryngeal surgery. Histopathology showed synovial sarcoma. He received partial laryngectomy via transoral LASER surgery and bilateral neck dissection.

RESULTS

We reported a 15-year-old male diagnosed with hypopharyngeal synovial sarcoma, left, monophasic spindle cell type, pT1bN0M0, stage I. He underwent thyroplasty two years after the initial surgery. After 5 years of surveillance, the patient remains tumor free with no evidence of recurrence as seen by flexible laryngoscopy and magnetic resonance imaging.

CONCLUSION

Synovial sarcoma of the head and neck is a rare but significant pathology. It presents multifaceted challenges including (1) the lack of clinical features, (2) the preoperative histopathological diagnosis, and (3) the postoperative modality of treatment. Clinical judgment should be exercised in its management, especially in pediatric patients, in order to achieve tumor free margins and maximal organ preservation. In our case, transoral LASER surgery resulted in complete tumor excision and good functionality after surgery.

POSTER # P-014

SURGICAL APPROACH OF JUVENILE NASOPHARYNGEAL ANGIOFIBROMA

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OBJECTIVES

To investigate the surgical approaches regarding to the stage of juvenile nasopharyngeal angiofibroma (JNA)

MATERIAL AND METHOD:

An evidence-based case report of a 13-year-old male patient with complaints of recurrent unilateral epistaxis, unilateral nasal obstruction, and swelling of the cheek, diagnosed as JNA and underwent extirpation surgery with Weber Ferguson approach. Literature were searched using “juvenile nasopharyngeal angiofibroma”, “open surgery”, and “tumor recurrence” as the keywords. Therapeutic studies with clear follow-up period to recurrence were included.

RESULTS

A retrospective cohort study conducted in 33 male patients with JNA. Twenty-five patients were undergone surgery with lateral approaches and eight patients with other approaches. After following up durations of one year, it is found that from five patients, three of them undergone lateral approach intervention, had tumor recurrence. It can be concluded that the lateral approach decreases tumor recurrence rates in patients with JNA compared to other approaches.

CONCLUSION

At advanced stage of JNA with a large tumor mass, surgical approach that can expose the entire mass of the tumor is needed.

POSTER # P-015

THE SURVIVAL TIME OF SURGICAL MANAGEMENT OF THE ORBIT IN SINONASAL SQUAMOUS CELL CARCINOMA

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OBJECTIVE

Aim to evaluate the survival time of sinonasal squamous cell carcinoma invading orbital patients who underwent surgery with orbital preservation or exenteration.

MATERIALS AND METHODS

Medical recording charts of patients with paranasal sinus cancer were reviewed between January 1st, 2010 and December 31st, 2016. Clinical presentation, orbital invasion staging, treatment and survival time were analyzed.

RESULTS

One hundred and twelve patients (73 males and 39 females) presented with sinonasal squamous cell carcinoma. There were 41 patients with an orbital invasion that needed orbital surgical management. Seven patients had periorbital involvements including 3 patients with visual acuity worse than 20/600 (poor VA) and 4 patients with visual acuity better than 20/600 (low VA). All of them were surgery with preserved the orbits that allowed median survival time of 118 days and 694 in poor and low VA, respectively ($p < 0.05$). Regarding patients with tumor-involved periorbital content, orbital exenterations were performed in patients with low VA ($n=16$) that provided median survival time better than orbital preservations ($n=10$) (1262 days and 894 days ; $p > 0.05$). Furthermore, patients with poor VA had exenterated the orbits ($n=5$) that yielded median survival time better than patients had preserved the orbit ($n=6$) (425 days and 290 days ; $p > 0.05$).

CONCLUSION

Orbital exenteration seemed to provide better median survival time but it did not reach statistical significance due to small sample size. However, the longer survival time allowed meaningful given in clinical practice. Thus, orbital exenteration should be considered in patients with periorbital content invasion although the patient has low visual acuity.

POSTER # P-017

BILATERAL ISCHAEMIC NECROSIS OF THE TONGUE - AN ATYPICAL PRESENTATION OF TEMPORAL ARTERITIS

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OBJECTIVES

Ischaemic necrosis of the tongue is rare. Current literature describes temporal arteritis as the most common cause, which often affects the tongue unilaterally. We describe an 80-year-old woman who developed bilateral tongue ischaemic necrosis in the context of an atypical presentation and delayed diagnosis of temporal arteritis.

Through this report, we aim to highlight the importance and early recognition of this uncommon presentation, which if delayed, can lead to worse outcomes and increased morbidities in those affected.

MATERIALS AND METHODS

Consent was obtained from the patient for use of her de-identified medical information and images. Clinical information including history, examination findings, investigation results and management plans were collated and described.

RESULTS

The patient was initially managed by her general practitioner, after presenting with non-specific symptoms of headache, throat pain and low-grade fever. She was later admitted to a rural hospital for a suspected cerebrovascular event and treated for a misdiagnosed tongue fungal infection.

The patient then developed acute loss of vision in her right eye, prompting urgent transfer to the Royal Victorian Eye and Ear Hospital. She received a final diagnosis of bilateral tongue ischaemic necrosis secondary to temporal arteritis here. The patient experienced clinical improvement from a prolonged course of steroid therapy.

CONCLUSION

This is the first Australian case report of bilateral lingual ischaemic necrosis secondary to temporal arteritis. In the absence of typical symptoms of temporal arteritis, any patient with lingual pain and evidence of tongue swelling or necrosis should be suspected for temporal arteritis, especially in patients above the age of 50.

POSTER # P-018

DESCENDING NECROTIZING MEDIASTITIS AS A COMPLICATION OF LUDWIG'S ANGINA SECONDARY TO ODONTOGENIC INFECTION

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OBJECTIVES

To report a case of Ludwig's Angina secondary to odontogenic infection leading to descending necrotizing mediastinitis and to discuss its signs and symptoms, pathophysiology, diagnostic work-up and management

MATERIALS AND METHODS

This is a case report from a tertiary government hospital.

RESULTS

Odontogenic infections rarely lead to life-threatening mediastinitis. Mortality rates from descending necrotizing mediastinitis are high especially without prompt management. We report a case of a 29-year-old male with a one-week history of toothache and gradual difficulty of swallowing. The patient was admitted as a case of Ludwig's Angina secondary to odontogenic infection and initially showed clinical improvement after incision and drainage of the submental area and administration of intravenous antibiotic therapy. The patient, however, later developed descending necrotizing mediastinitis and empyema thoracis which was managed with an emergency neck exploration with drainage of abscess, full thoracotomy, anterior mediastinotomy, decortication and bilateral chest tube insertion. He was eventually discharged after a month of steady improvement on supportive mechanical ventilation and antibiotic therapy.

CONCLUSION

Acute mediastinitis is a rare complication of infection from an odontogenic or pharyngeal focus. Infection of the submandibular and submental space in Ludwig's angina may progress to include deep neck spaces and later cause descending necrotizing mediastinitis. It is a surgical emergency with a high mortality rate necessitating thoracotomy, mediastinal drainage, and long-term antimicrobial therapy. Clinicians managing oropharyngeal infections should be aware of this rare, but potentially fatal complication which may occur even in immunocompetent individuals.

POSTER # P-019

CASE OF EWING'S SARCOMA OF THE MAXILLA

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OBJECTIVES

To report a case of Ewing's Sarcoma (ES) of the maxilla: its symptomatology, course, diagnosis and management.

MATERIALS AND METHODS

This is a case report of a 23-year-old female who initially presented with epistaxis from the right nostril of six months duration that later developed into a mass in the right maxillary area. On biopsy and immunohistochemistry (CD99), findings were consistent with Ewing's Sarcoma. Patient underwent wide resection of the mass, with preservation of the integrity of the adjacent structures, followed by chemotherapy.

RESULTS

Ewing's Sarcoma of sinonasal tract accounts to only 4-6% of all primary bone malignancy cases. Usually found in the bones and soft tissues at different sites of the body, it only occurs 1-4% occurs in facial bones and rarely involves the paranasal sinuses. Diagnosis was confirmed through biopsy and strong reactivity to CD99. CT scan demonstrated the degree of bone damage and ruled out any involvement of adjacent structures in the maxilla. Wide excision of the mass via a Weber-Ferguson Dieffenbach incision provided good exposure that allowed adequate margins of resection to be achieved with preservation of the orbital floor and palate.

CONCLUSION

Due to its rarity, Ewing Sarcoma of the maxilla requires skillful evaluation of the history, physical examination, and ancillary procedures in order to recognize, diagnose and treat the disease in its early stages.

POSTER # P-020

THE INCIDENCE OF STROKE AND MYOCARDIAL INFARCTION IN HEAD AND NECK CANCER PATIENTS

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OBJECTIVES

This study was aimed to investigate the incidence and associated factors of stroke and myocardial infarction(MI) after treatment of head and neck cancer(HNC) using population-based data.

MATERIALS AND METHODS

Based on the data of the Korean National Health Insurance Corporation, we obtained medical information including socioeconomic information. From 2007 to 2013, a total of 22737 patients who newly diagnosed with HNC were identified. A total of 68211 patients without HNC, stroke or MI were identified for control group. The incidence of stroke or MI during the follow-up period was examined in both groups.

RESULTS

The overall MI incidence was 1.3-fold higher in the HNC than in the control (4.42 vs 3.39 per 1000 person-years). Adjusted hazard ratio (HR) was 1.38. The overall stroke incidence was 1.38-fold higher in the HNC than in the control (8.48 vs 6.16 per 1000 person-years). Adjusted HR was 1.48. Comparing different site of cancer, hypopharyngeal cancer patients had the highest MI and stroke incidence rate (3-fold and 2.63-fold higher). The incidence rate of MI and stroke was age dependent. Comparing different therapeutic modalities, HNC patients receiving chemotherapy (CT) alone had the highest MI risk (HR : 1.88), HNC patients receiving CT with surgery had the highest stroke risk (HR : 1.81).

CONCLUSION

There is an increased risk of MI and stroke in HNC patients, depending on age and those who received CT alone and CT with surgery.

POSTER # P-021

OUTCOMES OF SUPERIORLY BASED STERNOCLEIDOMASTOID MUSCLE FLAP RECONSTRUCTION DURING PAROTIDECTOMY

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OBJECTIVES

This study was aimed to assess the efficacy of superiorly based sternocleidomastoid muscle flap reconstruction during parotidectomy in prevention of Frey's syndrome and facial contour deformity after parotidectomy.

MATERIALS AND METHODS

This prospective study included 29 patients with benign parotid tumours who underwent parotidectomy with sternocleidomastoid muscle flap reconstruction, in ORL HNS Specialist Hospital Yangon. Pre-operative Magnetic Resonance Imaging (MRI) of parotid region and FNAC assessment were made in all patients to exclude malignant parotid tumours. Superficial or total parotidectomies were done depending on tumour involvement and superiorly based sternocleidomastoid muscle flap was reconstructed into operated parotid bed during single stage surgery. At one month and three months periods after surgery, all patients were evaluated by Minor's Starch Iodine Test to detect Frey's syndrome. And they were examined by Designed Visual Analog Score to determine facial contour deformity. Moreover, patient's satisfaction with facial contour and patient's symptomatic experience of gustatory sweating were recorded.

RESULTS

Among 29 patients, Minor's Starch Iodine Test was positive in 5 patients (17%) and only 2 of them (7%) subjectively complained of gustatory sweating. Visual analog scores completed by patients themselves ranged from 0 to 3, and the scores from the blinded examiners ranged from 1 to 3.

CONCLUSION

Superiorly based SCM flap reconstruction during either superficial or total parotidectomy is an effective procedure for reducing the prevalence of Frey's syndrome objectively and subjectively. And it also provides better aesthetic outcome by improving the facial contour deformity.

POSTER # P-022

GORLIN SYNDROME: MULTIPLE FACIAL MASSES IN A 50-YEAR-OLD FEMALE

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OBJECTIVES

To report a case of a patient with Gorlin Syndrome, its clinical presentations, diagnostic criteria, and management

MATERIALS AND METHODS

Design: Case report

Setting: Tertiary government hospital

Patient: One

RESULTS

A 50-year-old female sought consult 29 years prior with gradually enlarging, coalescent multiple nevi on the face. Excision biopsy performed one year later revealed findings consistent with Basal Cell Carcinoma. With an uneventful post-operative course, the patient was discharged and was advised active surveillance.

Recurrence was observed 1 year prior to consult at our center, with note of irregular, hyperpigmented, rapidly enlarging, and disfiguring facial masses with foul-smelling discharge. Work-up done fulfilled the criteria for Gorlin Syndrome. The patient underwent wide excision of the facial masses, with frozen section, and reconstruction using split thickness skin graft. No recurrences were documented on follow-up 6 months post-operation.

CONCLUSIONS

Nevoid Basal Cell Carcinoma Syndrome, or Gorlin Syndrome, is a rare autosomal dominant tumor-predisposing condition. The patient had 3 major and 3 minor manifestations – fulfilling its clinical criteria. Although the lesions are not usually life-threatening, its high recurrence rate warrants patient education, further emphasizing prevention of its primary manifestation and the condition's genetic predilection. Remissions have been reported and disease surveillance is recommended in all documented cases, including their relatives.

POSTER # P-023

PRETREATMENT MEAN CORPUSCULAR VOLUME AS A PROGNOSTIC FACTOR FOR HEAD AND NECK CANCER

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OBJECTIVES

Pretreatment elevated mean corpuscular volume (MCV) was shown to be an independent risk factor for patients with esophageal squamous cell carcinoma. To the best of our knowledge, no data exists on the prognostic value of MCV for head and neck cancer. The objective of this study was to elucidate the relationship between pretreatment elevated MCV and prognosis of patients with head and neck cancer who underwent chemoradiotherapy.

MATERIALS AND METHODS

We assessed patients with oropharyngeal, hypopharyngeal, and laryngeal squamous cell carcinoma who underwent chemoradiotherapy in our department between 2003 and 2012 and performed a retrospective analysis. We excluded patients with previous treatments, palliative chemoradiotherapy, unavailable pretreatment MCV, and distant metastasis at the initial visit. This study included 301 eligible patients. The number of patients with oropharyngeal, hypopharyngeal, and laryngeal cancer were 118, 109, and 74, respectively. A median follow-up period was 5.1 years. Patients were divided into two groups according to their MCV. The cut-off value for MCV was calculated by a receiver operating characteristic curve. The primary endpoint of this study was overall survival rate.

RESULTS

Of all patients, 86 (29%) had high MCV (≥ 98.6 fL) and 215 (71%) had normal MCV (< 98.6 fL). There was a significant difference in overall survival rate between the two groups ($P=0.008$). The five-year overall survival rate of patients with high MCV and normal MCV were 55% and 76%, respectively.

CONCLUSIONS

Pretreatment elevated MCV predicted a worse survival outcome for patients with head and neck cancer who were underwent chemoradiotherapy.

POSTER # P-024

CURRENT OUTCOME OF ADJUVANT PLATINUM-BASED CHEMOTHERAPY FOR NASOPHARYNGEAL CARCINOMA : A SYSTEMATIC REVIEW

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OBJECTIVES

To evaluate the current outcome of patient undergoing chemoradiotherapy with or without adjuvant chemotherapy

MATERIAL AND METHODS

Search on online databases are performed, in Pubmed and Central, with keywords including "nasopharyngeal carcinoma", "chemotherapy", "adjuvant" and "outcome" along with their synonyms. Studies in english from 2014-2019 are included. Quality assessment were done with Newcastle Ottawa Scale for Cohort studies and with CEBM for Randomized Controlled Trial Studies. Risk of bias assessed using Cochrane Method.

RESULTS

From total of 179 study indentified, the title were screened for title and abstract. Twenty-one studies eligible. Furthermore 5 duplicated studies were excluded, 1 study outcome was differen, 1 study only available in abstract, and 1 study have no control group. A total of 7 studies were included in the final review with 1 RCT and 6 Cohort study. Most study have no significancy in overall survival , progressive disease or distant metastasis free time. But differ in high stage and high risk patient. Three studies included toxicity as an outcome with adjuvant toxicity outweigh the need to add another round of chemotherapy.

CONCLUSION

Adjuvant chemotherapy believed to be necessary in eliminating residual cancer cells but current studies shows little improvement in overall survival and sometimes unbearable toxicities.

POSTER # P-025

PAPILLARY SUBTYPE OF NASOPHARYNGEAL CARCINOMA. AN ATYPICAL VARIANT PREVIOUSLY UNREPORTED IN SOUTH EAST ASIA

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OBJECTIVES

To highlight the the various types of morphological patterns in nasopharyngeal carcinoma and to showcase a rare variant type

MATERIALS AND METHOD

Biopsy material was composed of a fragment of tissue measuring 13mm in aggregate diameter submitted in 1 block. The tissue was fixed in formalin and embedded in paraffin. Microscopic sections were made and stained with Hematoxylin and Eosin. Immunohistochemistry staining was done and the tumour was positive for p53 and negative for CK20.

RESULTS

Histopathology examination showed tumor cells arranged in papillary architecture and foci of sheets and clusters. The papillary tumor was composed of hyalinized fibrovascular core lined by transitional epithelium. In some areas , desmoplastic stroma reactions were observed, however no keratinization was seen.

CONCLUSION

We wish to highlight a hitherto undescribed variant of non-keratinizing nasopharyngeal carcinoma morphology. The treating physician and the reporting pathologist should always bear in mind such entities especially when dealing with limited tissue samples. Ancillary studies like immunohistochemistry are indispensable to diagnose such cases and differentiate it from other possible malignancies.

POSTER # P-026

PROGNOSTIC EVALUATION OF EXTERNAL AUDITORY CANAL CANCER USING TWO DIFFERENT STAGING SYSTEMS

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OBJECTIVES

The purpose was to compare survival differences between patients with external auditory canal (EAC) cancer treated according to the University of Pittsburgh modified TNM staging system and those treated in accordance with the 8th edition of the American Joint Committee on Cancer (AJCC) staging manual on the TNM staging system for cutaneous cancers of the head and neck.

MATERIALS AND METHODS

We performed a retrospective, single-institution review of 60 patients with EAC cancer treated with curative intent between September 2002 and March 2018. Survival outcomes were measured on the basis of the two staging systems.

RESULTS

The C-index values for the overall survival (OS) rate revealed that the University of Pittsburgh staging system had higher prognostic accuracy than the 8th edition of the AJCC staging system. Univariable and multivariable analysis showed that T classification according to the University of Pittsburgh staging system was an independent predictor of the OS rate (hazard ratio 5.25; 95% confidence interval 1.38-24.9; $p=0.015$). Meanwhile, the AJCC staging system could not differentiate T2 from T3-4 cancers.

CONCLUSION

The University of Pittsburgh staging system for patients with EAC cancer is a valuable tool for use in clinical decision-making and predicting survival outcome.

POSTER # P-027

CONCURRENCE OF LATE POST-TONSILLECTOMY HEMORRHAGE AND DENGUE FEVER IN A 17-YEAR OLD: FIRST REPORTED CASE

OBJECTIVE

To present a case of a 17-year-old post-tonsillectomy child who was readmitted due to dengue fever, hematemesis and late tonsillar bleeding three weeks after the surgery.

METHODS

Design: Case Report

Setting: Tertiary Government Hospital

Patient: One

RESULTS

A 17-year-old previously healthy female underwent elective tonsillectomy in a tertiary government hospital. Pre-, intra- and post-operative periods were unremarkable with no episode of bleeding. The index case was advised to resume normal diet and activity at two weeks followup. However, twenty days after tonsillectomy, the patient was brought to the emergency room due to fever, massive hematemesis, worsening thrombocytopenia and unstable vital signs. She was admitted in the pediatric intensive care unit as a case of severe dengue and was managed accordingly. However, despite aggressive medical management, the patient deteriorated and eventually succumb to death at post-operative day twenty one.

CONCLUSIONS

This could be the first reported case of a concurrent late post-tonsillectomy bleed and dengue fever in a previously healthy young female. Practicing in a dengue-endemic area, it is recommended to properly apprise all post-tonsillectomy as well as other post-surgery patients to do preventive measures to avoid contracting dengue until the risk of post-operative site bleeding is remote. Proper information dissemination on this risk can elicit health-seeking behavior among patients when presented with persistent fever together with other dengue signs and symptoms leading to prompt diagnosis, early management and better outcome.

POSTER # P-028

RADIATION-INDUCED MIDDLE EAR EFFUSION IN NASOPHARYNGEAL CARCINOMA PATIENTS. TO TUBE OR NOT TO TUBE?

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OBJECTIVES

To investigate the incidence of nasopharyngeal carcinoma(NPC)-related otitis media with effusion(OME) and predisposing factors. To audit the efficacy and safety of myringotomy and tube insertion(MT) in NPC-related OME.

MATERIALS AND METHODS

A retrospective cohort study of NPC patients treated in the National University Hospital of Singapore from 2011 to 2016. Incidence and outcomes of NPC-related OME were analysed.

RESULTS

157 patients had complete data for analysis. The incidence of NPC-related OME is 31.2%(49/157 patients; 21.0%[66/314] ears).

OME is more likely in females(OR 2.570, 95%CI:1.257-5.254;p=0.009) and in patients with pre-treatment OME(OR 3.361, 95%CI:1.249-9.044;p=0.013). There is no association between the presence of OME and tumour stage, extent and treatment modality.

18.4% (9/49) of OME patients resolved spontaneously without MT(15.2%[10/66] of ears) after an average of 150 days.

MT was performed on 20.4%(10/49) of the patients with NPC-related OME(21.2%[14/66] of ears with OME). 71.4%(10/14) of ears had recurrence of OME after the first MT, 21.4%(3/14) had retained tubes(average duration of tube: 740 days), and only 7%(1/14) had resolution of OME after the first MT. Seven ears underwent repeated MT(average of 3 tubes/ear) and 2 had OME resolution with an intact eardrum.

After MT insertion, only one patient reported intermittent otorrhea, none had chronic otorrhea.

CONCLUSION

NPC-related OME occurs in 31.2% of patients(21.0% of ears). 18.4% of them(15.2% of ears) resolves spontaneously. NPC-related OME tends to recur after tube extrusion, necessitating repeated MT. There is a low risk of troubling otorrhea after MT. MT insertion has a role in NPC-related OME.

POSTER # P-029

USEFULNESS OF SHOULDER ULTRASONOGRAPHY FOR EARLY DETECTION OF SHOULDER DYSFUNCTION FOLLOWING CERVICAL NECK DESSECTION

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OBJECTIVE

Shoulder pain and dysfunction may occur following cervical neck dissection (ND). This study investigated the usefulness of ultrasonography (USG) and the risk factors of shoulder dysfunction.

MATERIALS AND METHODS

A prospective observational study was conducted among the patients following cervical ND surgery. USG evaluation and physical exam of the shoulder were performed at pre and post-operative evaluation 3 months after ND. Visual analogue scale, EORTC-QLQ-C30, K-DASH (Korean version of the disabilities of the arm, shoulder, and hand questionnaire) were also evaluated pre and post-operatively. To confirm the spinal accessory neuropathy (SAN), electrodiagnostic study was performed postoperatively. The prevalence of shoulder dysfunction was calculated according to physical examination and USG finding.

RESULTS

A total of 92 patients enrolled including 17 patients who had bilateral ND (a total of 109 neck cases). SAN and myofascial pain syndrome (MPS) developed in 56 (51.3%) and 61 (56.0%) cases, respectively. Among 109 neck cases, 13 developed adhesive capsulitis (AC) (11.9%). The AC group showed significant lower quality of life and shoulder function and higher pain score compared to the normal contralateral side. Associating factors for AC were radiation therapy via multivariate analysis. There were significant differences in MPS, Δ abduction, and QOL score according to SAN. Of total 109 neck cases, 48 cases (44%) showed post-operative shoulder USG abnormal finding, and 35 cases (32.1%) showed post-operative aggravation.

CONCLUSION

Shoulder dysfunction after ND is mainly due to a decrease in range of motion following AC, SAN, and MPS, which could be early detected with shoulder USG.

POSTER # P-030

INTRAORAL MUCOEPIDERMOID CARCINOMA PRESENTING AS RETROMOLAR TRIGONAL MASS; A CASE REPORT

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ABSTRACT

The salivary gland tumors account for about 5% of head and neck malignancies. Among these, mucoepidermoid carcinoma (MEC) is the most common type of malignancy in major salivary glands. Intraoral MEC may occur in various locations, and the predilection sites are palate, cheek, mandible, lip and tongue etc. A very few cases of MEC are occurred in retromolar trigone. Recently, we experienced a 65-year old woman with retromolar trigonal mass, and she was finally diagnosed as MEC. We report the unique and rare disease entity with brief literature review.

POSTER # P-031

CORRELATION of BETHESDA SYSTEM for REPORTING THYROID CYTOPATHOLOGY and BRAF-V600E GENE MUTATION in PATIENTS with PAPILLARY THYROID CARCINOMA

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OBJECTIVES

The Bethesda System for Reporting Thyroid Cytopathology (TBSRTC) which was introduced firstly in 2007 for the aim of standardizing Thyroid FNA reports has been gained acceptance in tremendously increasing number all over world. We aimed to investigate the correlation between the preoperative TBSRTC results and postoperative histopathologic examination results for patients with Papillary Thyroid Carcinoma (PTC) whether they had BRAF V600E gene mutation or not.

MATERIALS AND METHODS

We included 38 patients who underwent a total thyroidectomy between 2010 and 2019 in our tertiary center. All of the patients diagnosed postoperatively as PTC. Nine-teen of these patients had BRAF V600 gene mutation, and the other half had not BRAF V600E mutation to compare each group. All of the patient's preoperative TBSRTC results and postoperative histopathologic examination of the thyroid specimen results were noted. These two parameters were compared between two groups in which had BRAF V600E gene mutation (Group 1;n=19) and without mutation (Group 2;n=19).

RESULTS

There was only one patient with Bethesda IV (B-IV) in Group 1 but one patient with Bethesda III (B-III) and 7 patients with Bethesda IV (B-IV) in group 2. Moreover, It was detected 3 patients with Bethesda II (B-II; false negative) in group 2.

CONCLUSION

We detected a strong positive correlation between preoperative TBSRTC results and postoperative correct PTC results in patients with BRAF V600E gene mutation. However, this correlation did not exist in PTC patients without this gene mutation. This finding needs prospective studies with large samples to verify.

POSTER # P-032

P16 PROFILE IN PATIENTS WITH OROPHARYNGEAL SQUAMOUS CELL CARCINOMA

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OBJECTIVES

To explain the role of protein status p16 in the diagnosis and management of oropharyngeal squamous cell carcinoma (SCC) patients with HPV infection especially in response to radiation therapy.

MATERIALS AND METHODS

This literature review is compiled based on various sources obtained through online database searches, such as Pubmed, Scopus, and EBSCOHost. Keywords used such as; "oropharyngeal squamous cell carcinoma", "p16", and "radiation therapy". From the searching result, we found 65 articles those are suitable with the theme.

RESULTS

This literature review showed that patients with oropharyngeal SCC positive p16 response better to radiation than p16 negative. Patients with oropharyngeal SCC positive p16 have better prognosis and higher survival rate.

CONCLUSION

Oropharynx SCC with positive p16 expression respond better to radiation therapy compared to oropharyngeal SCC with negative p16 expression.

POSTER # P-033

USE OF CYANOACRYLATE TISSUE ADHESIVES FOR WOUND CLOSURE IN THE HEAD AND NECK REGION: A 10-YEAR SYSTEMATIC REVIEW

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OBJECTIVES

Wound closure in the head and neck region is challenging, primarily due to aesthetic concerns. This study aims to compare the use of tissue adhesives (TAs) with other wound closure techniques, in the head and neck region.

MATERIALS AND METHODS

Available literature in English, including RCTs and case reports over the past 10 years, was reviewed from Pubmed and Google Scholar. Key terms used included “wound closure” and “tissue closure. Non English literature was excluded. Main outcomes measured were wound cosmesis, infection rates and dehiscence.

RESULTS

In the comparison of TAs and sutures, most studies reported no statistically significant difference in terms of wound dehiscence, post-op pain, infection rates, patient/surgeon satisfaction and long-term aesthetic outcome. Time taken for wound closure with TAs was substantially faster: 45s-1min for TAs as opposed to 4-6mins for sutures. Another study also reported better hemostasis 1-2 days postoperatively, when TAs were used. The comparison between TAs and staples showed a similar result. However operating time was slightly shorter for staples.

CONCLUSION

Given the right indications, cyanoacrylate can be used as a good wound closure modality and can be especially beneficial in the pediatric population. Recent literature has also published novel accounts of the use of TAs for intra-oral wound closure, closure of post-parotidectomy salivary fistulas, treatment of mucosal perforations during peroral endoscopic myotomy and even for closure of oroantral communications. Further research is needed. We propose an algorithm of the indications and use of TA in the head and neck region.

POSTER # P-034

MASSIVE CRANIOFACIAL BONE DESTRUCTION WITH UNILATERAL FACIAL PARALYSIS IN GORHAM SYNDROME

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OBJECTIVES

To report a case of Gorham–Stout Syndrome (GSS), presenting with multiple facial masses and unilateral right facial paralysis, its diagnostic criteria, and management

MATERIALS AND METHODS

Design: Case report

Setting: Tertiary government hospital

Patient: One

RESULTS

A 55-year old female presented with multiple masses in the frontal and temporal areas with associated unilateral right facial nerve paralysis. Imaging showed massive osteolysis of the craniofacial bones with sparing of the viscera. The histopathology result was consistent with connective tissue disease – fibroma vs. sclerosing hemangioma with no atypia. There were absence of hereditary, metabolic, infectious or malignant etiologies to explain the disease, thus we arrived at the diagnosis of GSS. The patient presented at the late stage hence surgical resection was not an option. She underwent radiotherapy and treatment for concomitant pneumonia and possible CNS infection. She eventually succumbed to septic shock, completing only 3 fractions of radiotherapy and 17 days of antibiotics.

CONCLUSIONS

GSS is an idiopathic condition that involves destruction of the osseous matrix of the bone with accompanying angiomatosis. Symptoms vary depending on the site of the bones affected. The rarity and idiopathic nature of this case makes it difficult to catch. A good correlation of the clinical, histopathologic, and radiologic findings are essential in early detection of the disease to achieve control and limit functional problems for these patients.

POSTER # P-035

A LARGE RECURRENT AMELOBLASTIC CARCINOMA IN A 60 YEAR-OLD FEMALE

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OBJECTIVES

A surgico-pathologically confirmed case of a large recurrent ameloblastic carcinoma is described. The existing literature on the epidemiology, presentation, pathogenesis, and management is reviewed.

MATERIALS AND METHODS

A single case report is detailed in this paper. Informed consent was secured prior to writing the manuscript. Medical and operative records were extensively reviewed.

RESULTS

A 60 year-old female, previously managed as a case of odontogenic tumor of the maxilla, underwent inferior maxillectomy. Frozen section and final histopathology confirmed ameloblastic carcinoma. Six years after, she presented with a gradually enlarging mass in the postoperative site and came in after three years had passed.

On physical examination there was a slightly movable predominantly firm mass approximately 17 x 17 x 15 cm with fluctuant areas, telangiectasias, and prominent vessels. There was no note of trismus and the tongue remained fully mobile. On the left eye, there was diplopia on primary gaze and hypertropia. Extraocular muscle movements were also limited on lateral and medial directions.

The craniofacial contrast-enhanced computed tomograph revealed a heterogeneously enhancing mass arising from the left masticator space, measuring approximately 15.9 x 16.6 x 16.4 cm with non-enhancing central areas of hypodensities and internal calcifications.

Metastatic workup raised suspicion for lung metastasis.

Palliative chemotherapy and radiotherapy was advised.

CONCLUSION

A high index of suspicion for ameloblastic carcinoma may warrant more aggressive management. Case reports may help raise awareness as to the possible clinical course and poorer prognosis. Long-term follow-up is a must in such cases.

POSTER # P-036

INFRATEMPORAL FOSSA MASS IN PEDIATRIC PATIENTS: AN UNUSUAL OCCURRENCE

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INFORMATION/BACKGROUND

The infratemporal fossa is anatomically situated in a deep location and is difficult to access. It is formed by soft tissue. Regarding the important boundaries of this area, its anterior wall is the posterior wall of maxillary sinus and posterior wall is a carotid sheath. Meanwhile, medial is lateral pterygoid plate, and roof is ramus of mandible.

With some difficulty and many complications to access the area, zygomatic arch, temporalis muscle, and ramus of mandible must be respectively removed.

Tumor of the infratemporal fossa may originate from the structures in this region, yet more often is the result of extension from neighboring structures. Nonetheless, metastatic lesions located in the region are rarely encountered.

Also, treatment of the infratemporal fossa tumor is hard to approach due to lots of surrounding vital organs in this area. Particularly, it can affect facial structure growth in children.

Hence, the best treatment outcome of this area is to save and protect structural organ involvement as much as possible with the most ultimate cure.

CASE REPORT

A 2-year-old boy had painless left cheek mass with rapid progress for 2 months (Fig.1). The mass extended above the zygomatic arch and pushed out in the left buccal area. Clinically, only the asymmetry of cheekbone was presented.

The intraoral examination showed a rubbery firm submucosal cheek mass in front of the retromolar triangle maxillary tuberosity, with approximate size of 2*3 centimetres and no sign of inflammation.

The CT scan revealed a well defined homogeneous mass with mild enhancement at left infratemporal space extended above the zygomatic arch. Pressure effect to mandible and posterolateral wall of left maxillary sinus was noted with widening of left pterygomaxillary fissure. The 3D bony



Figure 1. Painless left cheek mass in a 2-year-old boy

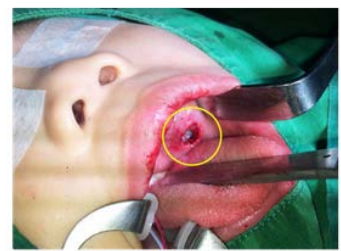


Figure 3. Intraoral Biopsy of lesion

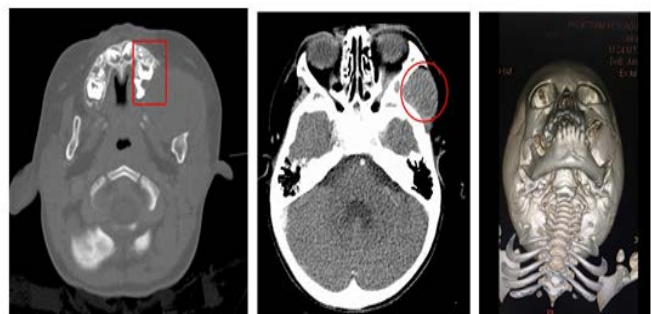


Figure 2. Computer Tomography Scan of the infratemporal mass

reconstruction showed the widening of infratemporal fossa due to compression of the mass at maxilla, zygomatic arch and both body, and ramus of mandible, with small bone erosion at maxilla (Fig.2).

The biopsy was done intraorally (Fig.3). The infantile fibromatosis was then diagnosed. The intervention procedure composed of left gingivobuccal sulcus incision extended to maxillary tuberosity and Gillies incision (Fig.4). The incision was done and temporalis muscle was elevated. The upper tumor at zygomatic arch was dissected. The tumor was successfully pulled down under zygomatic arch and removed transorally.

Grossly, the lesion was an irregular non-homogeneous tan grey and dark brown tissue with rubbery consistency (Fig.5). No postoperative complications were observed. Two months follow-up showed no clinical evidence of recurrence. MRI was done 3 months after surgery, with no recurrence tumor found.

CONCLUSION

This is the first rare case of infantile fibromatosis located in the infratemporal fossa at Siriraj Hospital. The radiologic image and pathology are, however, required for diagnosis of the infratemporal fossa lesions. Wide resection is the treatment of choice. Nevertheless, it is crucially important to preserve vital organs and cosmetics in facial area, especially in pediatric patients. Close follow-up is particularly needed to assess tumor recurrence and the function of main structures in this area.



Figure 4. Left gingivobuccal sulcus incision extended to maxillary tuberosity and Gillies incision

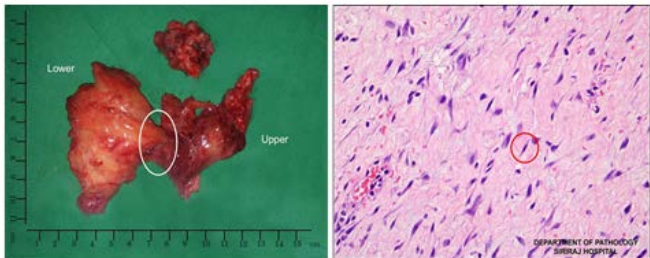


Figure 5. Gross and Microscopic Specimen

POSTER # P-037

ACTINIC KERATOSIS PRESENTING AS A CUTANEOUS HORN

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INTRODUCTION

Cutaneous horns are usually found on skin with chronic sun exposure. It is a rare tumor presenting as a conical, well-circumscribed mass, and is usually composed of dead keratin. Cutaneous horns may originate from a wide spectrum of skin lesions including those that are benign, premalignant, or malignant. In this case report we are reporting a unique case of cutaneous horn on the antihelix of the left ear pinna.

CASE REPORT

A 55-year old Indian male presented to our outpatient clinic with a complaint of a slow-growing "horn-like" structure over his left ear over the prior one year. Excision biopsy was performed and histopathology revealed a completely excised lesion, which was diagnosed as cutaneous horn with actinic keratosis at the base of the lesion.

CONCLUSION

A cutaneous horn is a rare clinical entity, with a bizarre horn-like growth commonly appearing at sun-exposed areas of the head and neck region. However, such a lesion can also originate from a benign, premalignant, or malignant condition; therefore, excision with histopathological studies is mandatory in all cases.

POSTER # P-038

“STONES, BONES, ABDOMINAL GROANS, THRONES, PSYCHIC MOANS”: A CASE REPORT OF PRIMARY HYPERPARATHYROIDISM.

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INTRODUCTION:

Primary hyperparathyroidism is seen in 1% of adult population. Etiology- autonomous production of parathyroid hormone which results in hypercalcemia. In these cases mean calcium, parathyroid hormone and alkaline phosphate levels are elevated while vitamin D levels are low. Hungry bone syndrome is the common complication seen in immediate post-operative period.

CASE PRESENTATION:

68 year old male presented with swelling on right side of the neck, noticed since 6 months. Associated with back ache, muscle ache and insomnia for 1-2 years.

1 month ago he presented with complaints of abdominal pain, vomiting and constipation for which he was admitted at a tertiary hospital and was diagnosed as Acute pancreatitis, AKI with CKD, Hypercalcemia and hypertension.

Then he was referred to us. On further evaluation USG neck indicated right Parathyroid adenoma (1.6 x 2 cm). Nuclear Parathyroid Scintigraphy and SPECT-CT revealed functioning parathyroid lesion (adenoma) inferior to the lower pole of right lobe of thyroid gland. Parathyroid hormone level was 857.6 pg/ml, S. Calcium persistently high (12.64 mg/dl), U. Calcium = 452.5 mg/24 hrs, Vitamin D = 25.8 mg/ml, S. ALP = 129, S. Phosphorous was normal.

DIAGNOSIS:

Primary Hyperparathyroidism

TREATMENT:

Right hemithyroidectomy with right inferior parathyroidectomy under GA.
Intra-operative PTH level was 57 pg/ml.

CONCLUSION:

As this case presented symptomatically, management was immediate. Post-operatively patient presented with hungry bone syndrome which was medically managed. Nuclear Parathyroid Scintigraphy and SPECT-CT have been fundamental tool to locate the pathology pre-operatively. Intra-operative PTH level was useful test to confirm the complete removal of complete hyperfunctioning parathyroid tissue.

POSTER # P-040

FACTORS ASSOCIATED WITH XEROSTOMIA IN NON-RADIATED PATIENTS

OBJECTIVE

To identify factors significantly associated with xerostomia in non-radiated patients.

METHODS

Patients who attended the outpatient otolaryngology clinic at Siriraj Hospital (Bangkok, Thailand) with complaints of dry mouth were invited to join this study. Collected data included age, gender, body mass index, smoking status, alcohol use, underlying disease, and previous medication and/or therapy. Irradiated patients were excluded. Participants were classified into either the diseased or xerostomia group by abnormal oral cavity examination and symptoms, or the no xerostomia group, which was defined as dry mouth symptoms with no presence of abnormal physical findings.

RESULTS

Two hundred and two participants with a history of dry mouth were consecutively enrolled. There were 86 patients with physical findings of xerostomia, and 116 symptomatic patients without xerostomia. Multivariate analysis revealed age over 50 years (adjusted odds ratio [aOR]: 3.1, 95% confidence interval [CI]: 1.3-7.9; $p=0.012$), analgesic and muscle relaxant intake (aOR: 3.6, 95% CI: 1.3-9.7; $p=0.012$), psychotherapeutic medication (aOR: 7.8, 95% CI: 2.6-23.7; $p<0.001$), and radioactive iodine therapy (aOR: 3.7, 95% CI: 1.2-11.8; $p=0.015$) to be independent predictors of xerostomia.

CONCLUSION

Xerostomia is a condition that can adversely affect quality of life. The results of this study revealed older age (≥ 50 years), analgesics and muscle relaxants, psychotherapeutic medications, and radioactive iodine therapy to be significantly associated with xerostomia. A thorough understanding of the symptoms, diagnosis, relevant risk factors, and effective management is essential for improving outcomes among patients with xerostomia.

POSTER # P-175

THE ELECTRO-CAPACITIVE CANCER THERAPY (ECCT) AS ADJUVANT THERAPY FOR ADVANCED STAGE NASOPHARYNGEAL CARCINOMA

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OBJECTIVES

The Electro-Capacitive Cancer Therapy (ECCT) is a low electric energy device which can be used as a supporting modality to hold the growth of cancer cells. ECCT has been investigated and proven to be able to kill cancer cells in vitro, but no single study about it in nasopharyngeal carcinoma (NPC). This study was conducted to determine the safety and usefulness of ECCT as adjuvant therapy for advanced NPC.

MATERIALS AND METHODS

The study was pre-post test with control group design. The sample was advanced stage of NPC patient who came to ORLHNS OPD Dr. Soetomo Hospital, Surabaya, and fulfilled the inclusion criteria. They were divided into 2 groups. The control group were given cisplatin based chemotherapy. The study group were given chemotherapy and ECCT. In safety aspect, they were examined with ECG, EEG, psychiatry test, and audiogram. Meanwhile, in usefulness they were examined the QoL and tumor volume.

RESULTS

There were 8 respondents in the control group and 16 in the study group, which 7 patients excluded, for different reason. In safety aspects there were no differences between groups pre and post treatment, statistically. In usefulness aspects, there was significant difference in QoL between respondents in the study group (p 0.027); in tumor volume there was difference between groups but not significant (p 0.284).

CONCLUSION

The ECCT was safe to be administered to advanced NPC patients, but did not provide usefulness as adjuvant therapy.

POSTER # P-176

DISPARITY IN GENDER AND SITE PREVALENCE OF ORAL CANCER IN NORTH INDIA (2000-2017)

INTRODUCTION

Oral cancer is a major problem in India and is among the top three types of cancers in the country [1]. Incidence of oral cancer in India is 20 per 100,000 people and accounts for over 30% of all cancers in the country [2]. In the recent years, tobacco products have become popular among younger Indians.[3]The aim of the study was to evaluate the site and gender specific prevalence oral cancer from 2000-2017.

METHODS

A retrospective study of 3262 oral cancer patients was conducted from 2000 to 2017 in B.R.Ambedkar Institute Rotary Cancer Hospital, All India Institute Of Medical Sciences, New Delhi. Data of patient's age, gender and site of cancer was collected and analyzed by Non-parametric trend test.

RESULTS

The proportion of oral cancer is higher in males (82%) as compared to females (18 %). Tongue is the most common site of oral cancer occurrence (37%)

CONCLUSIONS

In the North Indian population, the prevalence of Oral cancer is much higher among males as compared to females, and tongue being the most common site. This can be attributed to the difference in the prevalence of risk factors between India and the western world.

POSTER # P-196

DAYCARE TONSILLECTOMY

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OBJECTIVES

To evaluate day care tonsillectomies in a regional hospital since the establishment of a dedicated day care centre in 2006 until 2017 at Hospital Raja Permaisuri Bainun.

To determine day care tonsillectomies according to

- A. Indications for day care tonsillectomy
- B. Number of complications
- C. Type of complications
- D. Age group prevalence

MATERIALS AND METHODS

This is a retrospective study on day care tonsillectomy using data collected from the otorhinolaryngology department records. Patients with ASA 1 were included in the study while patients with co-morbid, no caretaker those, stay more than 20 km from the hospital, obstructive sleep apnoea, craniofacial abnormalities, cranio-facial abnormalities, developmental abnormalities, developmental abnormalities, and problem with logistics were excluded.

RESULTS

There was a total of 499(58%) adult and 354(42%) paediatric patients. Recurrent tonsillitis was the most common indication. The incidence of post tonsillectomy haemorrhage was 1.4 % (12 cases) with one case of bronchospasm. There were 7(58%) cases of secondary haemorrhage which occurred one week after tonsillectomy. Another 5(42%) cases of primary haemorrhage were reported intraoperatively and patients were admitted to the ward for observation post operatively. There were no mortalities in our series.

CONCLUSION

Day care tonsillectomy is a safe procedure. The period of observation post the tonsillectomy procedure in day care is sufficient within the six hours as any complications could be detected within that time and secondary haemorrhage only occurred a week later

Laryngology

POSTER # P-051

OUTCOME OF SINGLE OPERATOR RIGID ESOPHAGOSCOPY IN SWORD SWALLOWER'S POSITION TECHNIQUE FOR EXTRACTION OF INGESTED FOREIGN BODIES

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OBJECTIVES

Esophagoscopy, both diagnostic and therapeutic, is traditionally done using Jackson's High-Low Technique wherein a second operator is needed to adjust the head and neck of the patient while the main surgeon is manipulating the esophagoscope as it is introduced in the upper gastrointestinal tract. Although widely practiced, limited data is available to support the safety profile of rigid esophagoscopy done by a single operator. Thus, the objective of this study is to evaluate the outcome of patients who underwent single-operator rigid esophagoscopy technique for extraction of ingested foreign body with the patient in sword swallower's position, also known as Rose position.

MATERIALS AND METHODS

- a. Study Design: Observational, Descriptive, Retrospective Study Design
- b. Setting: Tertiary Government Hospital
- c. Participants: Eighty-eight (88) Filipino subjects underwent single-operator rigid esophagoscopy in sword swallower's position technique for extraction of ingested foreign body were included in a span of three years.

RESULTS

All patients regardless of age, sex, type of ingested foreign body and timing of intervention were discharged with condition improved. Minimal postoperative dysphagia and odynophagia are only apparent in 15%. Coin was the most common foreign body extracted among the pediatric age group, and dentures, followed by food bolus among adults. No complications were noted.

CONCLUSIONS

Regardless of patient's age, sex, and type of ingested foreign body, the single-operator rigid esophagoscopy in sword swallower's position technique is a safe and practical procedure for removal of ingested foreign bodies, with low-risk for iatrogenic complications when done properly.

POSTER # P-053

PIN NEEDLE AS TRACHEOBRONCHIAL FOREIGN BODY AT EMERGENCY ROOM (ER) OF DR. SOETOMO GENERAL ACADEMIC HOSPITAL SURABAYA (2016 - 2018)

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OBJECTIVES: The purpose of this study was to describe patients with a pin needle as tracheobronchial foreign body (FB) who went to Otorhinolaryngology's ER Unit in the period 2016-2018.

MATERIALS AND METHODS: Descriptive observations using retrospective data. The data taken from medical records in the Broncho-Esophagology (BE) division of Otorhinolaryngology ER unit. The patients were divided into two groups by age, namely group A (≥ 10 year old) and group B (≤ 10 year old).

RESULTS: Among 40 tracheobronchial foreign bodies, there were 24 patients (60%) with pin needle aspirations; consisting of five male (20.83%) and 19 female (79.17%). The youngest in group A was 2.5 year old (average 5.38 ± 3.25 years, median 4.5 years) and the oldest in group B was nineteen year old (average $14.1 \pm 2, 40$ years, median fourteen years). All pin needle FB appear on the thorax X-ray (100%). The initial management of all FB aspirations was extraction with rigid bronchoscopy. Most patients lived outside Surabaya.

CONCLUSION: There was an increase in the incidence of pin needle aspiration over the last three decades. Most of the patients were teenage girls. Thorax X-ray provided a good diagnostic imaging. Rigid bronchoscopy extraction is the first choice treatment of aspirated tracheobronchial pin needle.

POSTER # P-054

TRANSORAL INJECTION AUGMENTATION OF VOCAL FOLD – HONG KONG EXPERIENCE

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OBJECTIVES

Transoral injection augmentation of vocal fold under local anaesthesia is relatively unpopular in Hong Kong and many other Asian countries. The benefit of this injection approach in Asian population was not well established. We report our experience on this injection approach and determine its successful rate, complication rate and effectiveness in our region.

MATERIALS

AND

METHODS

Retrospective review of patients who underwent injection augmentation of vocal fold by transoral approach under local anaesthesia over a 25-month period was performed.

RESULTS

37 injections in 34 Hong Kong Chinese patients were performed. 36 injections were successful (97.3%) and no significant complication occurred in all cases. Among the 31 cases of successful unilateral injection for vocal fold paralysis, Voice Handicap Index – 10 (VHI-10) was reduced in 29 cases (93.5%) and Maximum Phonation Time (MPT) was lengthened in 28 cases (90.3%). Bilateral injection was performed in 5 cases of vocal fold atrophy and VHI-10 was reduced in 4 cases (80%).

CONCLUSIONS

Transoral injection augmentation of vocal fold under local anaesthesia is a safe and effective approach with high successful rate in treating Chinese patients with unilateral vocal fold paralysis and bilateral vocal fold atrophy. This approach should be promoted and popularized in Asia.

POSTER # P-055

IMPROVEMENTS IN OUTCOMES USING A MULTIDISCIPLINARY TRACHEOSTOMY

TEAM

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OBJECTIVES

A tracheostomy tube is a significant cause of morbidity and mortality. Patients with tracheostomies need specialised care with the involvement of a variety of medical, nursing and allied health staff. Multidisciplinary team care is often considered the gold standard in delivering a holistic care model. Consisting of a diverse selection of staff they can provide specialised coordination, skills and education/training. This study aims to assess the outcomes associated with a multidisciplinary tracheostomy service.

MATERIALS AND METHODS

A prospective cohort study of 65 adult tracheostomy patients' part of one of Australia's largest multidisciplinary tracheostomy services. The service is comprised of otolaryngologists, speech pathologists, specialised nursing staff and physiotherapists with both inpatient, outpatient and community reach. Tracheostomy tube samples were sent for brush cytology and MCS after initial insertion, 6-weeks and 3-months. Data was collected over 18 months. Chi-square tests were performed to compare culture results and other endpoints.

RESULTS

Perioperatively, patients' part of the MDT were seen on a regular basis and educated early on tracheostomy care. Chi squared analysis showed a significant difference in bacterial colonisation of tracheostomy tubes between inpatients vs outpatients (73%v33%, $p=0.026$). There was also a significant increase in nonsocomial multi-resistant infections in inpatients ($P<0.05$).

CONCLUSION

Inpatients with tracheostomies are more prone to be colonised, in particular with nonsocomial multi-resistant infections. A multidisciplinary tracheostomy service with outpatient services providing more holistic care and education is able to reduce the amount of time patients spend in hospital and thus their risk of developing hospital acquired diseases.

POSTER # P-056

ASSESSING TRACHEOSTOMY TUBE COLONISATION AND INFECTION IN A MULTIDISCIPLINARY TRACHEOSTOMY SERVICE

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OBJECTIVES

A tracheostomy tube is a significant cause of morbidity and mortality, particularly in hospitalised patients. Biofilm formation and colonisation has been linked with in-dwelling devices including tracheostomies and can lead to infections and sepsis. Colonisation of objects can be affected by environmental and patient factors as well as their own design including shape, size and material. This study aims to assess the colonisation of various tracheostomy tubes.

MATERIALS AND METHODS

A prospective study of 65 adult tracheostomy patients' part of one of Australia's largest multidisciplinary tracheostomy services. Tube samples were sent for brush cytology and MCS after initial insertion, 4 weeks and 3 months. Data was collected over 18 months. Chi-square tests were performed to compare culture results and other endpoints.

RESULTS

Chi squared analysis showed a significant difference in colonisation when comparing cuffed vs un-cuffed tubes (74%v27%, $p=0.010$). There were no statistically significant differences when comparing tube diameter, material or the presence of fenestrations. *Pseudomonas-Aeruginosa* and *Staphylococcus-Aureus* were the two most common colonisers. Inpatients cultured significantly higher numbers of nosocomial multiresistant bacteria ($P<0.05$).

CONCLUSIONS

Cuffed tracheostomy tubes are more prone to colonisation and infection than uncuffed tubes. This is likely due to the cuff forming a physical barrier to innate immune responses by inhibiting natural physiological mucociliary clearance. When safe to do so, patients should be stepped down to uncuffed tubes sooner rather than later particularly in the setting of long term tracheostomised patients. As expected, hospitalised patients are at higher risk of colonising nosocomial multi-resistant bugs.

POSTER # P-057

USE OF TRANSORAL CARBON DIOXIDE LASER FOR SUPRAGLOTTIC WEB FROM CAUSTIC INGESTION IN A 13 YEAR OLD

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OBJECTIVES

This paper aims to report the surgical management of a supraglottic web from caustic ingestion in a pediatric patient using transoral carbon dioxide laser.

MATERIALS AND METHODS

Setting: Tertiary Public University Hospital

Design: Case Report

Subjects: 1 patient

RESULTS

A pediatric patient who accidentally ingested sodium hydroxide was initially managed with tracheostomy and tube gastrostomy. 13 years later, patient presented with inability to tolerate decannulation. On nasopharyngolaryngoscopy, a circumferential supraglottic web with less than 1 mm central opening was noted. Patient underwent transoral carbon dioxide laser excision. Patient was successfully decannulated with good vocal output.

CONCLUSION

Supraglottic stenosis or web among the pediatric age group is rare and poses a challenge among otorhinolaryngologists. It is important to know the extent of disease in order to create a sound surgical plan. Transoral carbon dioxide laser can be an option for the treatment of supraglottic stenosis among caustic ingestion patients presenting years after post injury.

POSTER # P-058

THE DANGERS OF BEATBOXING – SPONTANEOUS PNEUMOMEDIASTINUM AND SUBCUTANEOUS EMPHYSEMA: A CASE REPORT

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BACKGROUND

Beatboxing is a complex form of vocal percussion, in which performers imitate drum sounds using their entire vocal tract. We report the first known case of spontaneous pneumomediastinum with subcutaneous emphysema occurring as a complication of beatboxing.

CASE

A 20 year-old male presented with sudden onset of fever, neck tightness, sore throat and hoarseness of voice after beatboxing earlier in the day. He had extensive subcutaneous emphysema over his neck and upper chest. Plain radiographs and computed tomography (CT) study of his neck and chest demonstrated subcutaneous emphysema and pneumomediastinum, with no pneumothorax. Water-soluble contrast swallow and upper gastrointestinal endoscopy were normal. He was managed conservatively. By Day 3 of admission, his symptoms had resolved. The subcutaneous emphysema had improved and he was discharged. At a 1 month-interval outpatient review, the subcutaneous emphysema had completely resolved. A repeat chest radiograph was normal. He was advised against beatboxing or other activities which may generate high intra-thoracic pressures.

CONCLUSION

Spontaneous pneumomediastinum with subcutaneous emphysema are possible complications of beatboxing. We recommend a CT study of the thorax with oral and intravenous contrast as the initial test of choice to exclude oesophageal rupture and other life threatening conditions. The management is usually expectant unless the patient is clinically unwell. Managing these cases as outpatients deserves further study.

POSTER # P-060

A CASE REPORT OF LARYNGEAL NEUROENDOCRINE CARCINOMA

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INTRODUCTION

Neuroendocrine carcinoma is a rare type of tumor which have traits of both nerve and hormone-producing cells. The tumor can develop anywhere in the body. It accounts for less than 1% of laryngeal carcinoma.

OBJECTIVES

To describe a rare case of laryngeal neuroendocrine carcinoma.

CASE PRESENTATION

A 67-year-old man came to the outpatient clinic on February 2018 with a 2-month history of hoarseness and dysphagia, accompanied by occasional shortness of breath. He used to smoke since he was young until he quit smoking 2 years before. ENT examination was normal. Endoscopic examination showed a vascular bluish mass in the supraglottic area, which partially obstructed the view of laryngeal inlet and airway. The mass was pedunculated and moved with each inspiration and expiration. The patient underwent direct laryngoscopy and biopsy. Further examination showed no metastasis on another organ. The operation removed the tumor from its stalk on the right arytenoid. In the post-operative healing process, only a small portion of the tumor stalk remained. The patient received further treatment with chemoradiation and returned for post-treatment evaluation. Post-treatment endoscopy showed a patent airway with no sign of the tumor. Evaluation by CT scan and endoscopy was done periodically on 1, 3, and 6 months after. There was no recurrence during a follow-up period of 15 months.

CONCLUSION

A rare case of laryngeal neuroendocrine carcinoma was diagnosed in endoscopy. The patient underwent operative procedure and chemoradiation. Follow-up for 15 months showed no recurrence of the tumor.

POSTER # P-061

HERPES SIMPLEX LARYNGITIS PRESENTING AS AIRWAY OBSTRUCTION IN AN IMMUNOCOMPROMISED PATIENT.

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OBJECTIVES

We present a rare case of Herpes Simplex Virus (HSV) laryngitis resistant to standard antiviral treatment and review acyclovir treatment in an immunocompromised patient individual with HyperIgM Syndrome. He presented with progressive laryngeal papillomatous disease (voice and airway symptoms) requiring unplanned tracheostomy. Histopathology revealed ulcerative, inflamed mucosa in a papilliform configuration with marked viral cytopathic effect and strong positive HSV immunostaining, consistent with herpes. Disease progression occurred despite acyclovir therapy and ultimately tracheostomy was required. The patient was treated with foscarnet with good clinical response and was successfully decannulated.

MATERIALS AND METHODS

Case presentation and discussion of resistant HSV laryngitis and comprehensive literature review of HSV laryngitis in adults.

RESULTS

From this case report and review of the literature, we advocate early biopsy of unusual or poorly responsive laryngeal lesions for pathology, culture and virology studies in order for proper treatment to be implemented. The diagnosis of HSV laryngitis is difficult and can mimic neoplastic lesions like a malignancy or laryngeal papillomatosis. In immunocompromised patients, HSV may be refractory to standard antiherpetic therapy.

CONCLUSION

Herpetic viral infections seldom involve the larynx. Laryngeal disorders provoked by the herpes virus are characterised by a large spectrum of presentations and polymorphisms, and can simulate neoplastic lesions such as malignancies or papillomatosis. Diagnosis requires discerning clinical consideration and confirmatory testing. HSV laryngitis should be considered in immunocompromised patients with nasoendoscopic findings of large, exudative and ulcerative masses. Early and appropriate treatment initiation can possibly avoid the need for a tracheostomy.

POSTER # P-062

RAMSAY-HUNT SYNDROME PRESENTING TRUE VOCAL CORD PARALYSIS

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OBJECTIVE

To present an unusual case of Ramsay-Hunt Syndrome initially presenting with vocal cord paralysis originally treated as stroke in an elderly hypertensive woman. To discuss the probable contributing factors leading to this unusual disease process.

METHODS AND METHODS

Design: Case Report

Setting: Private Tertiary, University Hospital

Subject: One

RESULTS

A 62-year-old elderly, hypertensive woman presented with hoarseness associated with odynophagia, dysphagia, aspiration, left facial pain and left facial paralysis of three days duration. The patient was initially treated as a case of stroke. However, the imaging study of the brain revealed a normal result. Video laryngoscopy revealed left true vocal fold paralysis, with left arytenoid vesicular lesion. The patient was treated as a case of Ramsay Hunt Syndrome involving the trigeminal nerve, facial nerve, vagus nerve, glossopharyngeal nerve, and vestibulocochlear nerve, and recovered with anti-viral and oral corticosteroids.

CONCLUSION

The presentation of Ramsay Hunt Syndrome can be atypical and should not be disregarded merely on the basis of dysphagia. Consideration must be given to the possibility of multiple cranial nerve involvement, particularly when swallowing and airway protection are compromised. Swift diagnosis and treatment is crucial in the successful management of the disease.

POSTER # P-064

DENDRITIC FIBROMYXOLIPOMA OF LARYNX

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2 Pathology Department, Universiti Kebangsaan Malaysia Medical Center, 56000 Kuala Lumpur, Malaysia.

BACKGROUND

Dendritic fibromyxolipoma (DFML) is an uncommon, benign soft tissue tumour. It is seldom reported in the hypopharynx. However, its endoscopic appearance may mimic an aggressive soft tissue neoplasm hence the importance of its recognition.

CASE PRESENTATION

We discuss a rare case of dendritic fibromyxolipoma of the pyriform fossa in a 66-year-old male who presented with hoarseness.

CONCLUSION

The best approach in managing this case will be discussed.

POSTER # P-065

CASE REPORT: LOCALIZED AMYLOIDOSIS OF LARYNX AS UNCOMMON CAUSE OF DYSPHONIA

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OBJECTIVES

Amyloidosis defined as a group of diseases that result from the abnormal extracellular deposition of a protein in various organs of the body. It can be localized or systemic involvement. Localized laryngeal amyloidosis is a rare entity and accounts for 0.2% to 1.2% of all benign laryngeal tumours. We report two cases of localized laryngeal amyloidosis.

CASE PRESENTATION

The first case presented with hoarseness for three months. Laryngoscope found irregular and polypoidal growth over bilateral false cords which obscure the true cords. The second case complained of dysphonia which worsening over two years. Laryngoscopy also showed irregular growth over the supraglottic region. Both patients underwent endoscopic microlaryngeal surgery and debulking of tumour done using cold method. The histopathological examination and Congo-red staining confirms the diagnosis of amyloidosis. Otherwise, work out for systemic disease was negative.

RESULTS

At 12 months of review, the patient's hoarseness and voice quality improved. Laryngoscope showed stable post-operative changes with bulging over both false cords, mobile and symmetry vocal cords. On the other hand, the other case had her symptoms remained at 2 months follow up.

CONCLUSION

Laryngeal amyloidosis is a rare though benign disease. However it could be life threatening condition if airway compromise. The mainstay of treatment remains surgical debulking but is not curative as complete margin resection is difficult. In addition, the treatment should be directed toward the maintenance of the airway and improvement of the voice.

POSTER # P-066

CONCURRENT WELL-DIFFERENTIATED LIPOSARCOMA OF THE LARYNX AND DUCTAL CARCINOMA-IN-SITU IN A YOUNG FEMALE: A POSSIBLE CASE OF GENETIC CANCER PRE-DISPOSITION

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OBJECTIVES

Liposarcoma are rare malignant mesenchymal tumors that occur in the lower limbs, retroperitoneum and upper extremities. Only 3-8% have been reported to originate in the head and neck. There have been less than 40 confirmed cases of laryngeal liposarcoma reported in literature. As it is rare, these may easily be mistaken for a benign lesion on outpatient endoscopy. A missed or delayed diagnosis may consequently lead to poor outcomes for a disease that has otherwise good prognosis given timely management.

MATERIALS AND METHODS

We report the case of a 39-year-old female with a left aryepiglottic fold mass presenting as a two-month history of globus sensation. Flexible laryngoscopy with videostroboscopy revealed a fleshy, smooth, non-pedunculated, benign-appearing mass with its bulk centered on the left aryepiglottic fold.

RESULTS

Laser excision and subsequent biopsy revealed this to be a well-differentiated liposarcoma. Three months post-excision, surveillance stroboscopy demonstrated normal vocal cord function and no recurrence of masses at the surgical site. However, a left breast mass was detected, which was revealed to be mammary carcinoma on ultrasound-guided aspiration. She underwent modified radical mastectomy which yielded a histopathological diagnosis of ductal carcinoma in-situ.

CONCLUSION

Due to the indolent course and high tendency for local recurrence of liposarcoma, close post-operative surveillance is necessary. Furthermore, concurrent malignancies in a young patient should alert the clinician to the possibility of familial cancer predisposition syndromes that would warrant a more proactive search for concurrent lesions on subsequent visits.

POSTER # P-067

COMPARISON OF ARYTENOID VERTICAL HEIGHT DISCREPANCY IN NORMAL VERSUS PATIENTS WITH UNILATERAL VOCAL CORD PALSY

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AIM

Cadaveric experiments and more recently clinical data have demonstrated that patients with vertical height discrepancy between their arytenoids experience poorer voice outcomes in patients with unilateral vocal cord palsy (UVP) after medialisation laryngoplasty. However, the presence or severity of height discrepancy in normal patients without UVP has not yet been clearly defined.

The aim of this study was to examine whether vertical height discrepancy was present in a normal population without vocal cord pathology or concerns with their voice, in order to verify that discrepancy truly carries acoustic consequences.

METHODS

A retrospective review of prospectively collected data was performed on consecutive patients who underwent high resolution (1mm slices) computed tomography imaging of their neck. Patients were excluded if they had any previous head and neck surgery or were known to have any vocal cord pathology. Scans were assessed for discrepancy in arytenoid vertical height discrepancy and compared to a cohort with known UVP.

RESULT

44 normal patients (50% female, mean age 57.6 ± 14.8 years) were compared to 23 patients with UVP (43.4% female, mean age 52.3 ± 14.9 years.) Normal patients were found to have a smaller height discrepancy compared to UVP patients (student's t-test, $2.00\text{mm} \pm 0.00$ vs $2.39\text{mm} \pm 0.72$, $p < 0.001$.)

CONCLUSION

This study appears to confirm that UVP may cause discrepancies in arytenoid vertical height. Normal patients should not have a discrepancy of over 2mm. This study therefore suggests that discrepancy is pathologic, and it is plausible that this results in acoustic consequences.

POSTER # P-069

WALLENBERG SYNDROME PRESENTING IN THE YOUNG AS ISOLATED DYSPHAGIA: CASE REPORT AND REVIEW OF THE LITERATURE

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ABSTRACT

OBJECTIVE:

To present a unique case of dysphagia in a young healthy patient that would later be diagnosed as Wallenberg syndrome

STUDY DESIGN:

Case report.

MATERIALS AND METHODS:

We present an interesting case of a very subtle presentation of Wallenberg syndrome that occurred in an otherwise healthy 35-year-old Thai male. The patient initially complained of acute dysphagia over six hours that later progressed to include mild dizziness, numbness of the left face, no dysarthria, and no hoarseness, but evidence of true vocal cord paralysis. The patient had no other weakness or other cerebellar signs. We follow by reviewing the literature regarding incidence and most common presentation of this very rare entity in the young population. Literature analysis was performed utilizing a PUBMED search of the following terms: "Wallenberg syndrome, young adult, dysphagia, and dizziness." Results of the search were further investigated and presented.

SETTING:

Tertiary care medical center.

RESULTS:

A review of Wallenberg syndrome in the young adult population (19-44 years of age) remains rare and typically presented as acute dysphagia or acute dizziness. Only six case reports have previously been reported. The average reported age was 30 years (ranging from 32-40). The most common symptoms were acute symptoms of vertigo, dysphagia, dysarthria, or numbness of the face. Few reported spontaneous nystagmus or multiple cranial nerve involvement.

CONCLUSION:

The astute Otolaryngologist should be aware of the acute presentation of Wallenberg syndrome in young adults. Acute dysphagia, hoarseness, and dizziness should be thoroughly assessed. Prompt diagnosis and neurology consultation are necessary for ideal treatment.

POSTER # P-190

CASE REPORT : SECONDARY LARYNGEAL TUBERCULOSIS IN PATIENT WITH ACTIVE PULMONARY TUBERCULOSIS

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BACKGROUND:

Secondary laryngeal tuberculosis is laryngeal infection caused by Mycobacterium Tuberculosis which is accompanied with pulmonary tuberculosis. Laryngeal involvement was 15-37% in pulmonary tuberculosis. Misdiagnose is a common problem and has become a major health problem.

CASE:

A 30 year-old female patient presented with a two-month history of hoarseness. The symptom followed with odynophagia, 2-years history of coughing, episode of recurrent fever and 3 kg weight loss. Based on laryngoscopy, the patient presented with multitude lesion on the larynx. Chest X-ray, AFB sputum, expertMTB gene, and Sensitive Rifampicin Tests was conducted. The patient was given first category of anti-tuberculosis drugs.

DISCUSSION:

Patient was diagnosed with laryngeal tuberculosis based on its clinical appearance and laryngoscopy examination results. There are tubercles, ulcerative lesions, and "Mouse Bite" appearance on the epiglottis. Chest X-ray revealed active tuberculosis, positive AFB Sputum Test, positive Sensitive Rifampicin Test and expertMTBGen confirmed our diagnosis. The patient was given 1st category of anti-tuberculosis drugs (2RHZE/ 4RH) for 6 months. At 5th month, follow-up was performed by laryngoscopy, ulcerative lesions and tubercles no longer found. However, "Mouse Bite" appearance is still found, this indicates the infection has hit the epiglottis cartilage. Hoarseness have decreased and the patient's weight has risen 4 kg.

CONCLUSION:

Early laryngeal examination in patients with history of hoarseness is important to help detect laryngeal tuberculosis and to prevent misdiagnose. Compliance of patients in taking medication gives good results. Follow-up is needed to assess the effectiveness of treatment and prevent complications.

POSTER # P-191

A RARE CASE OF BLUE RUBBER BLEB NEVUS SYNDROME

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OBJECTIVES

This paper aims to present a rare case of a Blue Rubber Bleb Nevus Syndrome in a 35-year-old woman who was initially diagnosed as Pharyngitis. This is to highlight the importance of thorough history taking, physical examination and proper management of Head and Neck Tumors.

MATERIALS AND METHODS

Design: Case Report

Setting: Clinical Practice and Tertiary Government Hospital

Patient: One

RESULTS

A 35-year old female with Iron deficiency anemia who presented with globus sensation, had multiple bluish soft, tender and compressible nodules at both arms, back and left leg. Flexible Fiberoptic Nasopharyngeal endoscopy revealed a smooth, wide based, non-pulsatile, bluish mass at left arytenoid partially obstructing the airway. Upper Gastrointestinal Endoscopy showed Tonsillar and esophageal hemangioma, Hiatal Hernia and Erosive Gastritis. Colonoscopy revealed Internal Hemorrhoids. Doppler Ultrasound of Lower Extremities showed venous malformations on the left posterior proximal leg and medial malleolus. Patient was examined in Southern Philippines Medical Center where a Multidisciplinary Tumor Board Conference decided to manage the case conservatively with Iron Supplementation and frequent monitoring.

CONCLUSION

This is an interesting case of Blue Rubber Bleb Nevus Syndrome, a rare disease manifested by distinctive cutaneous and gastrointestinal hemangiomatous lesions. The most common initial presentation is iron deficiency anemia with multiple bluish cutaneous nodules. Rarely, laryngeal involvement is present. Early detection will prevent misdiagnosis and over usage of inappropriate tests. In this case, it is best to do conservative management if there is no immediate need for surgery. Thus, improving patient's quality of life and prevent further morbidity.

Otology & Neuro-Otology

POSTER # P-091

SQUAMOUS CELL CARCINOMA OF EXTERNAL AUDITORY CANAL-OPERATED CASE

Dr Lucian Lapusneanu

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2. Daniele Mihalache-Pathological Anatomy Department, Emergency County Hospital, Braila, Romania

3. Dobre Mihai-Radiology Department, Emergency County Hospital, Braila, Romania

INTRODUCTION

Squamous carcinoma is the most frequent neoplasm in the external auditory canal (86%), about four times more common than the basal carcinomas. These tumors have an aggressive nature and spread among preformed vascular and neural pathways, invading adjacent structures. Most squamous cell carcinomas (SCC) of the temporal bone occur in the fifth and sixth decades of life. Otorrhea is the primary symptom, but otalgia, hearing loss, and bleeding may be frequent as well. Diagnosis is usually delayed because of the similarity between symptoms of other benign otologic conditions such as chronic suppurative otitis media and those of squamous carcinoma.

MATERIAL AND METHODS

An elderly patient with otorrhea and nearly permanent hearing loss in the right ear was misdiagnosed and treated in a 9 month interval as for an otitis externa. At the time of the appointment with the doctor, the patient presented otorrhea, hearing loss, and the otomicroscopic examination of distal 1/3 of the external auditory meatus revealed an infiltrative and vegetative formation with postero-inferior insertion and distal channel obliteration. The MRI proved evidence of tympanic perforation with erosion of the hammer handle. The resection en bloc of the neoplasm involving EAC and tympanoplasty were the next steps taken. The postoperative examinations revealed a good integration of the neotympanum and lack of relapse.

CONCLUSION

The early detection of the squamous cell carcinoma before its extensive spread into the middle ear allows better treatment and prognosis. Therefore, it is of utmost importance to investigate this disease and to make a proper differential diagnosis with other benign otologic pathologies. Diagnosed on time, treated surgically correctly and then cured through radiotherapy, the malignant process did not relapse, the patient coming regularly to examination.

POSTER # P-092

THE ASSOCIATION BETWEEN SERUM VITAMIN D LEVELS AND BENIGN PAROXYSMAL POSITIONAL VERTIGO

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1 - Department of Otolaryngology, Ramathibodi Hospital of Mahidol University, Bangkok, Thailand

INTRODUCTION

Recent studies have reported an association between benign paroxysmal positional vertigo (BPPV) and osteopenia/osteoporosis. Because calcium is an important component of otoconia, we hypothesize that impaired calcium metabolism as a result of reduced serum vitamin D levels may be associated with BPPV.

OBJECTIVE

To evaluate the association between serum vitamin D levels and BPPV.

SUBJECTS AND METHODS

This study was designed as a case-control study comparing serum vitamin D levels in 57 BPPV patients and 59 healthy controls whose age, gender, and BMI distributions were similar to those of the BPPV group.

RESULTS

There were no significant demographic differences between case and control groups. The mean age of BPPV patients, which comprised 49 (86%) women and 8 (14%) men, was 60.8 years. The data showed that BPPV patients had significantly lower serum vitamin D levels than healthy controls (21.5 ng/ml vs 25.7 ng/ml). Within BPPV patients, however, we found no statistically significant differences in serum vitamin D levels between recurrent and non-recurrent subgroups (22.0 ng/ml vs 20.7 ng/ml).

CONCLUSION

There was an association between low serum vitamin D levels and BPPV incidence in both recurrent and non-recurrent group.

POSTER # P-093

ENDOSCOPIC TYMPANOPLASTY : A STUDY OF 50 CASES

DR KISHAN KUMAWAT, MS ENT – APOLLO ENT HOSPITAL BARMER, RAJASTHAN

ABSTRACT

- This study is aimed to evaluate the role of endoscope in the management of dry central perforation of tympanic membrane.
- Total 50 patients underwent endoscopic tympanoplasty, between the time period of January 2017 to December 2018, at APOLLO ENT HOSPITAL BARMER RAJASTHAN.
- In this study, there was 96% Graft take up rate with endoscopic approach.
- The endoscopic approach have following advantages over microscopic approach :-
- ↓ operation time
- ↓ post operative pain level
- Better cosmetic results
- Better surgical view with minimal incision
- High success rate of graft take up
- Better post operative hearing improvement &
- Avoids end aural vertical and post auricular incisions.
- Thus endoscopic tympanoplasty can be a good alternative of microscopic tympanoplasty

INTRODUCTION

- Mer & colleagues introduced the middle ear endoscopy in 1967.
- An endoscope is an equipment used successfully in several procedures of many medical specialties.
- The endoscope has practically replaced the microscope for it offers
 1. The excellent viewing of structures
 2. Large angular image, viewing in several angles & magnification



ENDOSCOPIC VIEW OF TYMPANIC MEMBRANE

Endoscopic view of right middle ear

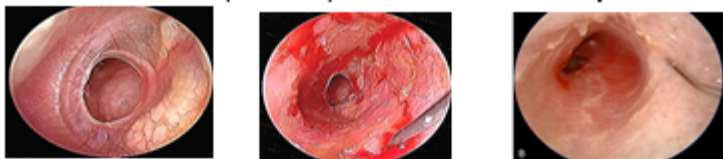
METHODS

- This study was conducted at APOLLO ENT HOSPITAL BARMER, RAJASTHAN.
- Between January 2017 to December 2018.
- All 50 patients underwent preoperative assessment with proper history; otoscopic & endoscopic examination; tuning fork test; pure tone audiometry (PTA); xylocaine sensitivity test; X-ray mastoid & X-ray PNS; routine blood investigations.

- The 50 patients were between 12 to 60 years with dry central perforation, small & medium in size.
- Male to female ratio was 2:3
- According to PTA finding, 43 patients had pure conductive hearing loss (average 35-40 db) & 7 patients had mixed hearing loss (average 30-35 db).
- In 37 patients we used temporalis fascia & in remaining 13 patients tragal cartilage was used as graft material

Surgical steps

1. Infiltration at 3 O'clock, 6 O'clock, 9 O'clock and 12 O'clock positions



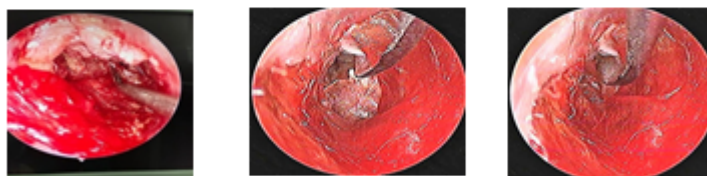
2. Freshening the margins of perforation & incision



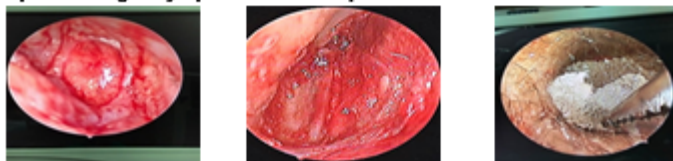
3. Elevation of tympano-meatal flap



4. Placement of graft (underlay technique)



5. Repositioning of tympano-meatal flap



RESULTS

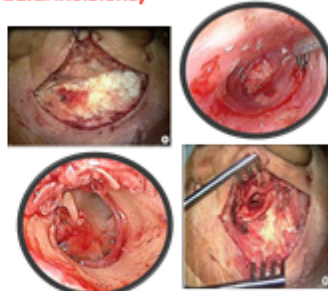
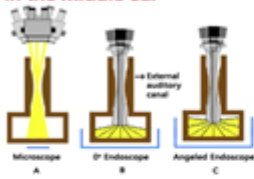
- From total of 50 cases with endoscopic approach, graft take up rate was 96 % with only 2 cases of graft failure.
- Complete graft uptake rate was 97.29% & 92.38% for temporalis fascia graft & tragal cartilage graft respectively.
- The average time taken for each endoscope assisted tympanoplasty was around 60-70 minutes

3 weeks post-operative results



DISCUSSION

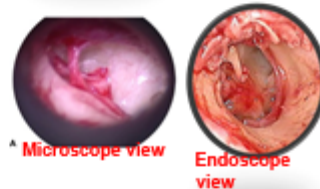
1. Endoscopes provide a wider & 2. Does not require large angled view of the fine structures incisions (post-auricular & end aural incisions) in the middle ear



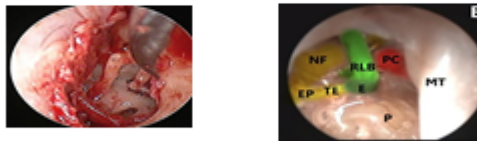
3. Provide better cosmetic outcomes (no mastoid dressing postoperative)



4. High-resolution and relatively clear images



5. Provides better visualization of hidden areas in the middle ear cavity including - sinus tympani, facial recess, hypotympanum, tuba orifice, incudostapedial joint & oval/round window niches



Drawbacks of Endoscopic tympanoplasty

- Only one-hand surgery; in situation of massive bleeding, the endoscopic surgery could be difficult due to blood in cavity.
- Endoscopic instrument could make direct injury in middle ear cavity.
- Thermal damage to surrounding structure by light source

CONCLUSION

- The endoscopic approach has introduced a new perspective to ear surgery.
- Using this method, improved cosmetic outcomes & also, reduced postoperative morbidity.
- It can be performed & taught in academic institutions in the residency program in department of Otorhinolaryngology.

POSTER # P-095

BILATERAL JUGULAR BULB DIVERTICULA – A RARE RADIOLOGICAL FINDING

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OBJECTIVES

Jugular bulb diverticulum is a rare form of jugular bulb abnormality that often occurs unilaterally. This may cause pulsatile tinnitus, hearing loss and vertigo. We describe a 67-year-old woman who developed sensorineural hearing loss (SNHL) and pulsatile tinnitus with findings of bilateral jugular bulb diverticula on computed tomography (CT) and magnetic resonance imaging (MRI). Through this case report, we aim to explore the clinical presentation, investigations and management for this uncommon vascular abnormality, which lacks current established guidelines.

MATERIALS AND METHODS

Consent was obtained from the patient for use of her de-identified medical information and images. Clinical information including history, examination findings, investigation results and management plans were collated.

RESULTS

The patient was referred to our institution by her audiologist for sudden left-sided SNHL and pulsatile tinnitus. Her ear examination was normal and pure-tone audiogram demonstrated asymmetrical moderate-severe left-sided SNHL.

Her MRI-Brain revealed a 6mm signal abnormality involving the left petrous temporal bone. A cone-beam CT subsequently confirmed the presence of bilateral jugular diverticula. She was given a course of high-dose oral prednisolone on initial encounter, with resolution of pulsatile tinnitus and improvement in hearing on follow-up. She was decided for conservative management after a multi-disciplinary meeting.

CONCLUSION

This is the first Australian case report of bilateral jugular bulb diverticula in a symptomatic patient. In a normal ear examination, the presence of pulsatile tinnitus with vertigo or hearing loss should prompt clinicians to exclude jugular bulb abnormalities or other vascular aetiologies on radiological investigations. Management and follow-up duration should be determined on an individual basis.

POSTER # P-096

THE VESTIBULAR REHABILITATION THERAPY VERSUS HIGH DOSE BETAHISTINE FOR TREATMENT OF THE ELDERLY WITH CHRONIC VESTIBULOPATHY : A RANDOMIZED CLINICAL TRIAL

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OBJECTIVE

To study the effectiveness of vestibular rehabilitation therapy (VRT) and high dose Betahistine in treating elderly with chronic vestibulopathy (CV).

MATERIAL & METHODS

Fifty patients (14 males, 36 females) aged 55 years-old and above diagnosed with CV were recruited. Patients were randomly assigned to either VRT or high dose Betahistine group. The VRT group would attend therapy once a week for at least 4 sessions within 6 weeks while the other group, Betahistine was prescribed at 48 mg three times daily for 6 weeks. The Vertigo Symptoms Scale (VSS) and Vertigo Handicap Questionnaires (VHQ) were used as subjective assessments at pre-intervention, at 3 weeks and after 6 weeks post-intervention while Video Head Impulse Test (vHIT) and Cervical Evoked Myogenic Potential (cVEMP) were used as objective assessments at pre-intervention and after 6 weeks post-intervention.

RESULTS

The mean scores of VSS and VHQ showed decreasing trends from baseline to 3 weeks and 6 weeks and were statistically significant in both treatment groups. However, when comparing between groups, there were no significant difference in scores indicating both treatments were equally effective. cVEMP results showed no significant difference between pre and post-treatment in both groups. Meanwhile some of vHIT components showed significant difference between pre and post treatment in both groups.

CONCLUSIONS

Both treatment modalities are equally effective in treating elderly with CV. Variety of ages in elderly makes no difference on therapy outcome. Elderly with CV now can be counselled on which treatment options best suits their preferences.

POSTER # P-097

MANAGEMENT OF PARS TENSA RETRACTION POCKETS

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CHA Bundang Medical Center, CHA University

OBJECTIVE

In the present study, we investigated long-term outcomes after treatment for advanced retraction pockets of pars tensa using a tympanostomy tube insertion combined with laser-assisted contraction-lifting myringoplasty and radiologic considerations connected to the clinical findings.

METHOD

The patient with varying degree of retraction of the pars tensa according to Sade's classification underwent CO2 laser myringoplasty combined with tympanostomy tube insertion. All patients were followed for 5 years postoperatively. The mastoid pneumatization and eustachian tubes were evaluated using temporal CT multiplanar reconstruction method.

RESULTS

If a successful outcome was defined as an intact tympanic membrane with no retraction or the development of a stable, grade I mild retraction, the retractions had normalized or improved in most of the patients by the end of the follow-up. The statistical analysis showed a significantly narrow eustachian tube diameter in diseased ear side in adults rather than children. There were no differences in mastoid pneumatization in both ear for children while 21.4% of cases had a small contracted mastoid in adults.

CONCLUSION

The present study suggests that different pathology may occur in the development of retraction pockets in adults and children, which may supports adapting a more conservative flexible approaches as the treatment for children with retraction pockets. Early recognition of eustachian tube dysfunction and appropriate surgical intervention are the key to hearing preservation in the management of retraction pockets.

POSTER # P-098

INTRAMUSCULAR STREPTOMYCIN INDUCED OSCILLOPSIA- A CASE REPORT

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3 Department of Radiology, Universiti Kebangsaan Malaysia Medical Centre, 56000 Kuala Lumpur, Malaysia.

BACKGROUND

Oscillopsia is an illusion of an unstable vision causing the perception of to-and-fro movement of the environment. It is most commonly idiopathic. Aminoglycosides administration such as streptomycin generating toxic metabolites can cause oscillopsia.

CASE PRESENTATION

We report a case of a 36 years old Malay female with positive Mycobacterium tuberculosis polymerase chain reaction (PCR) who developed oscillopsia during the streptomycin administration.

CONCLUSION

We discussed the approach in managing this case.

POSTER # P-099

ANALYSIS OF AUDIOMETRIC DIFFERENCES IN NORMAL HEARING SUBJECTS: A COMPARATIVE STUDY BASED ON GENDER AT CIPTO MANGUNKUSUMO NATIONAL GENERAL HOSPITAL

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2 – ENT Department, Cipto Mangunkusumo National General Hospital, Jakarta, Indonesia

OBJECTIVES

In evaluating hearing abilities, there are many studies reported in literature that summarized audiological findings and their relation with subjects' age. However, there are limited studies that have attempted to delineate the gender differences in audiological findings. This study aims to explore the differences between males and females in terms of audiological evaluation.

MATERIALS AND METHODS

This study is a cross sectional study on samples taken sequentially at ENT out-patient clinic, Cipto Mangunkusumo National General Hospital, Jakarta, on January – April 2017. A total of 71 individuals with hearing within normal limits were selected for the study, including 28 males and 43 females. Pure tone audiometry, speech audiometry, and words in noise audiometry were used to assess audiology findings. The results then analyzed by Mann-Whitney U test.

RESULTS

There was statistically significant difference ($p < 0,05$) between male and female at speech recognition threshold (SRT) 50% assessed by words in noise audiometry. The median of SRT 50% on words in noise audiometry in male subjects was 66 dB, while the median in female subjects was 67 dB.

CONCLUSION

We found that there was gender difference for word-recognition performance in the presence of background noise in individuals with normal hearing threshold, where the females have poorer results compared to males. However, well-controlled prospective studies with higher number of samples are essential to confirm the results obtained and to identify the possible mechanisms underlying the gender differences.

POSTER # P-100

QUALITY OF LIFE IN HEARING LOSS PATIENTS USING INDONESIAN VERSION OF HEARING HANDICAP INVENTORY FOR ADULTS (HHIA)

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2 – ENT Department, Cipto Mangunkusumo National Hospital, Jakarta, Indonesia

OBJECTIVES

Hearing loss can cause handicap that contribute to decrease quality of life (QoL). The Hearing Handicap Inventory for Adults (HHIA) was used to assess the degree of handicap in adult patients with hearing loss. This study is aimed to investigate QoL among hearing loss patients using Indonesian version of HHIA questionnaire.

MATERIAL AND METHODS

We conduct a cross-sectional study at Cipto Mangunkusumo General Hospital, as tertiary national referral hospital in Indonesia. Inclusion criteria was patient 18-60 years old with sensorineural hearing loss and the exclusion criteria was middle ear abnormalities. QoL was classified as no handicap (0-16), mild-to-moderate handicap (18-42), and severe handicap (>42).

RESULT

A total of 25 patients involved in this study. Mean age was 44,6 years and mean HHIA score was 39,92. Nineteen subjects (70%) found to have handicap (36% and 40% have mild-to-moderate and severe handicap, respectively). Seven subjects with severe handicap (37%) have no occupation. The worst component of QoL are difficulty in understanding clients/colleagues (S7) on social scale and anxiety (E12) on emotional scale. This Indonesian version of HHIA questionnaire is proven to be valid and reliable and has been registered for patent in Ministry of Justice and Human Rights of Republik Indonesia.

CONCLUSION

Most of Indonesian patients with hearing loss had impaired quality of life (QoL). This Indonesian version of HHIA questionnaire would be useful for further evaluating QoL among hearing loss patients in Indonesia.

POSTER # P-102

INTRATYMPANIC ADMINISTRATION OF ALPHA-LIPOIC ACID-LOADED PLURONIC F-127 NANOPARTICLES AMELIORATES ACUTE HEARING LOSS

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1 – Clinical Research Institute, Daejeon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Daejeon, Republic of Korea.

2 – Department of Medical Life Sciences, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea.

3 – Department of Otolaryngology, Daejeon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Daejeon, Republic of Korea.

4 – Catholic Photomedicine Research Institute, College of Medicine, The Catholic University of Korea, Seoul, Republic of Korea

OBJECTIVES

The purpose of study was to develop a therapeutic drug for acute hearing loss using an antioxidant-containing nanoparticle based on pluronic F127..

MATERIALS AND METHODS

We selected alpha lipoic-acid (ALA) as a drug to be loaded in nanoparticles through literature search. The safety of nanoparticle in HEI-OC1 cells and the protective effect against aminoglycoside toxicity were investigated. Then, we measured the intracellular levels of ROS and antioxidant proteins in response to kanamycin with or without ALA-loaded nanoparticle. In mice, we treat the nanoparticles by intratympanic injection 4h before ototoxicity induction and analyzed the therapeutic ability of the nanoparticles in acute hearing loss.

RESULTS

The size of particles was about 109.1 nm, and in the analysis of drug release, about 28% of the drug was released gradually from nanoparticle for 40 hours at room temperature. In vitro results showed the nanoparticles were safe in MTT assay and provided protective effects at concentrations from 0.25 mg/ml to 2.5 mg/ml. It also showed an increase in antioxidant proteins such as Nrf2, HO-1, SOD-1 and SOD-2. In animal study, the hearing of mice injected with the nanoparticles into the middle ear cavity was significantly preserved after ototoxicity induction compared to the control group. The increase of Nrf2 was also observed in cochlea of these animals, which indicated that the nanoparticles showed the protective effect of hearing through the same antioxidant mechanism.

CONCLUSION

ALA-loaded Pluronic F127 nanoparticles showed effective hearing protection in acute hearing loss, which could be mediated through the Nrf2 / HO-1 pathway. Considering the safety and sustained drug release of the nanoparticles, it appears to be a potential new drug formulation for intratympanic injections.

POSTER # P-103

DEGREE OF SPONTANEOUS NYSTAGMUS AFFECTS THE LENGTH OF HOSPITALIZATION IN VESTIBULAR NEURITIS AT EARLY STAGE

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Ho Yun Lee, Su Jin Kim

OBJECTIVES

We aimed to confirm the prognostic factors for predicting faster recovery of VN at early stage.

MATERIAL AND METHODS

We retrospectively reviewed patients' medical charts who visited emergency department at a university hospital diagnosed with VN and admitted to hospital for treatment between 2014 and 2018. All the variables including bed-side examination and laboratory testings were collected as much as possible. Bivariate analysis and stepwise regression analysis were performed with these variables.

RESULTS

A total of 56 patients' individual data were retrospectively analyzed. Mean hospitalization day was 4.6 ± 1.4 days. At initial bedside examination, horizontal SN was observed in all patients and 80.3% of these had positive head impulse test. Mean caloric weakness was $65.5 \pm 20.6\%$. For vHIT, both gain of anterior and horizontal semicircular canal (SCC) between lesion side and intact side were statistically different ($p < 0.001$). Degree of SN ($p = 0.014$), time constant measured by post-rotatory nystagmus in the intact side ($p = 0.040$), gain of posterior SCC in the lesion side ($p = 0.036$) was correlated with hospitalization period. Stepwise regression analysis revealed that degree of SN was independent prognostic factors for predicting the length of hospitalization period (Beta=0.098, 95% CI=0.012-0.184, $p = 0.027$, $R^2 = 0.202$). Others were not significant.

CONCLUSION

Degree of SN was independent prognostic factor for predicting early recovery of VN during hospitalization period. Other laboratory findings were not related to prognosis.

POSTER # P-104

ADENOID CYSTIC CARCINOMA OF EXTERNAL AUDITORY CANAL: A RARE CASE

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1 - Otorhinolaryngology Head and Neck Surgery Department, Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada, Yogyakarta, Indonesia ; 2 - Otorhinolaryngology Head and Neck Surgery Department, Dr. Sardjito Hospital, Yogyakarta, Indonesia ; 3 - Pathology Anatomical Department, Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada, Yogyakarta, Indonesia ; 4 - Pathology Anatomical Department, Dr. Sardjito Hospital, Yogyakarta, Indonesia

INTRODUCTION

Primary malignancies of the external auditory canal (EAC) are extremely rare with more than 80% being squamous cell carcinomas and adenoid cystic carcinoma (ACC) accounting for approximately 5%. These tumours are associated with a high risk of recurrence and significant morbidities from surgical management and adjuvant radiotherapy.

CASE PRESENTATION

We reported 40 year old female patient with complaints of hearing loss in the right ear. There is a lump in the right ear canal that has been felt for approximately 6 months. On the physical examination of the right ear seen the mass covered the ear canal so that the tympanic membrane of the right ear could not be assessed. The results of the tuning fork confirmed by audiometry showed that Auris Dextra conductive hearing loss were moderate. The result of gustatorik test is decreasing senses of salty and bitter senses, result for schimmer test is orbita dextra shorter 5mm than orbita sinistra and result for sensory test is decreasing for mandibula dextra nerve. CT Scan results show bilateral mastoiditis. The patient performed tympanoplasty and mass resection. The results of Anatomical Pathology examination is adenoid cystic carcinoma.

CONCLUSION

Malignant tumours of the EAC are rare and most are squamous cell carcinomas. ACC arising in the EAC is exceedingly rare. ACC has 3 main histological patterns: tubular, cribriform and solid. Tubular ACC has the best prognosis, whereas solid ACC has the worst prognosis. Surgery treatment consisted of excision of the EAC and the resulted for local eradication of the lesion.

POSTER # P-105

EFFECTS OF MULTIPLE SCLEROSIS ON MEDIOOLIVOCOCHLEAR SYSTEM

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Department of Neurology, Istanbul Medeniyet University, Goztepe Training and Research Hospital, Istanbul Turkey 3

OBJECTIVES

The aim of this study was to investigate the effects of multiple sclerosis on the medial olivocochlear system, one of the olivocochlear efferent systems.

MATERIALS AND METHODS

In this study, peripheral hearing was evaluated by pure tone audiometry test (PTA). MOC system was evaluated by suppression testing with Transient otoacoustic emission test (TEOAE) and contralateral broad band noise. The MS group of 30 patients and the control group of 32 subjects underwent PTA and TEOAE test at 1000-1500-2000-3000-4000 frequencies in the right and left ear, and TEOAE test with contralateral suppression to observe the MOC reflex.

RESULTS

Otoacoustic emission values at all frequencies except 1500 Hz in right ear, and bilateral ears showed significant reduced values between study and control groups ($p < 0.05$). In addition, contralateral suppression values at 4000 Hz showed a significant difference between the study and control groups ($p < 0.05$). A significant negative correlation was found between disease duration and age at 4000 Hz. Accordingly, as the age and duration of the disease increased, the difference between 4000 Hz and 1000 Hz suppressed and non-suppressed measurement in the right ear decreased.

CONCLUSION

Otoacoustic emissions reflect cochlear functions, low emission responses obtained in MS can be attributed to early subclinical involvement of outer hair cells on the auditory pathways. The decrease in the suppression value especially at 4000 Hz in MS patients was affected by MOC system and as a result it was seen that MS affected the medioolivocochlear system which is the efferent system of auditory pathways.

POSTER # P-107

PATTERN OF MIDDLE EAR CHOLESTEATOMA AND IMPLICATION ON SURGICAL APPROACH

PURPOSE

Understanding the pattern of involvement of middle ear cholesteatoma is important in achieving complete eradication of disease and creation of a safe and dry ear. In recent years, this subject becomes more pertinent with the rise of endoscopic ear surgery as surgeons decide on the optimal approach to visualize and extirpate disease. With modification to the Attic-Tympanum-Mastoid classification system proposed by Telmesani, this study aims to evaluate the commonest patterns of involvement of middle ear cholesteatoma and its implication on surgical approach.

METHODS

This is a retrospective case series conducted in a single tertiary institution in Singapore. All patients undergoing surgery for cholesteatoma between January 2012 and June 2015 were included. Staging of cholesteatoma was assessed clinically and corroborated with radiological findings based primarily on the grading system proposed by Telmesani, in which sites of cholesteatoma were divided into attic, tympanic cavity and mastoid with a specific identification of the facial recess and/or sinus tympani extension. In addition, the presence of an automastoidectomy cavity and other complications were also noted.

RESULTS

53 patients (55 ears) were included. The majority of patients had cholesteatoma involving the attic (98.2%). The cholesteatoma extended to the facial recess and/or sinus tympanum in 26 cases (47.3%). The disease extended into the mastoid antrum and beyond in 43 cases (78.2%).

CONCLUSION

Our study shows that the majority of cholesteatomas present with extensive attic disease and significant involvement of the mastoid. In these situations, endoscopes may be best suited for adjunctive rather than exclusive use in surgery.

POSTER # P-109

3-TESLA MRI BRAIN SCANNING IN A MEDEL SYNCHRONY PAEDIATRIC COCHLEAR IMPLANT RECIPIENT – FIRST REPORTED CASE, CLINICAL CONSIDERATIONS AND IMPLICATIONS FOR FUTURE PRACTICE

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2 – Department of Medical Imaging, Perth Children's Hospital, Perth, Australia

OBJECTIVES

To demonstrate the safety and feasibility of the first reported case worldwide of a 3-Tesla MRI scan in a pediatric MedEL Synchrony cochlear implant recipient under general anesthesia.

MATERIAL AND METHODS

A 3 year old child with a left optic pathway glioma managed with chemotherapy who received a MedEL Synchrony cochlear implant on the right for sensorineural hearing loss was examined. The Synchrony device was implanted due to its purported MRI compatibility in this patient. Following informed consent and radiological approval, the child underwent an MRI scan to assess for growth of the glioma. Concerns were initially raised about the inability of the child to report pain or symptoms whilst under anesthesia, unlike adult patients in a similar situation.

RESULTS

The 3-Tesla MRI scan was performed without complication. There was expected artefact due to the magnet of the receiver. There was no malfunction of the implant noted after the procedure and no neurological or otological complications post MRI scanning. The child has subsequently had a further three MRI scans in the same region with no reported complications or effects on the cochlear implant or magnet. Meaningful staging information was obtained from the scan with regards to the tumour.

CONCLUSION

This is the first reported case of a child with a MedEL Synchrony cochlear implant undergoing a 3-Tesla MRI scan under general anaesthesia and with repeated scanning. Provided manufacturer guidelines are adhered to, 3-Tesla MRI scanning should not be contraindicated in pediatric CI recipients with a compatible Synchrony cochlear implant.

POSTER # P-110

UNUSUAL PRESENTATION OF SKULL BASE OSTEOMYELITIS IN NONIMMUNOCOMPROMISED ELDERLY PATIENTS – THE ESSENTIAL ROLE OF NUCLEAR IMAGING IN DIAGNOSIS

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OBJECTIVES

Otogenic skull base osteomyelitis (SBO) is a life-threatening condition requiring timely diagnosis and treatment. It is most commonly seen in the elderly diabetic or immunocompromised patients. The role of nuclear medicine imaging in diagnosis of SBO remains controversial.

MATERIALS AND METHODS

We present two unusual cases of otogenic SBO in elderly non-immunocompromised patients without diabetes. A review of the relevant literature was performed in discussion of these two patients.

RESULTS

Both patients presented with mild chronic otalgia and essentially normal inflammatory markers. They were subsequently diagnosed with otogenic SBO based on nuclear medicine imaging. Nuclear medicine imaging was essential for diagnosis and localization of SBO in these patients as computed tomography (CT) and magnetic resonance imaging (MRI) either failed to detect SBO or to accurately localize SBO.

CONCLUSION

We recommend a high index of suspicion as SBO can occur in non-immunocompromised elderly patients without diabetes. CT and MRI scans are useful but not always reliable in the diagnosis and accurate localization of SBO. Nuclear medicine imaging is essential in the diagnostic workup.

POSTER # P-112

A RADIOLOGIC STUDY OF INNER EAR MALFORMATIONS IN COCHLEAR IMPLANT PATIENTS

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ABSTRACT

OBJECTIVE:

The aim of this study is to determine the preoperative radiologic prevalence of inner ear malformations in cochlear implant patients according to Sennaroglu's classification.

MATERIALS AND METHODS:

This was a retrospective study performed at Ear Nose Throat Hospital of Ho Chi Minh City between January 2016 and October 2018. Inner ear malformations on temporal bone CT scan were identified from all patients who have received cochlear implants during the study period.

RESULTS

12 patients with inner ear malformations were identified from a total of 158 cochlear implant patients, represented a prevalence of 7.6%. Among them, there were 6 patients with incomplete partition type II (50%), 3 patients with cochlear ossification (25%), 2 patients with cochlear hypoplasia type III (16.7%), and 1 patient with incomplete partition type III (8.3%). Enlarged vestibular aqueduct associated with incomplete partition type II was found in 2 cases (16.7%). Associated semicircular canals anomalies were found in 5 cases including: cystic lateral semicircular canal (4 cases, 33.3%) and semicircular canal aplasia (1 case, 8.3%).

CONCLUSION:

This study documents the prevalence of inner ear malformations in cochlear implant patients (classified by Sennaroglu) in Vietnamese subjects. Understanding of such anomalies would significantly help surgeons in making surgical strategy to obtain optimal outcomes.

POSTER # P-113

ENDOSCOPIC MANAGEMENT OF MIDDLE EAR / MASTOID CHOLESTEATOMA

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OBJECTIVES

To analyse the outcomes and complications of endoscopic transcanal / combined open mastoidectomy ear surgeries for middle ear / mastoid cholesteatoma.

MATERIALS AND METHODS

Retrospective review of surgical notes, surgical video recordings, audiology outcomes and post-surgery complications of endoscopic ear surgeries for cholesteatoma.

RESULTS

Eighteen patients underwent endoscopic transcanal ear / combined transmastoid surgeries for middle ear / mastoid cholesteatoma from September 2013 till November 2018. Four cases of attic / antrum cholesteatoma, underwent transcanal endoscopic atticostomy and attic reconstruction. Two cases of cholesteatoma involving attic and mastoid, with good pre-op hearing level, were treated by combined cortical mastoidectomy and transcanal endoscopic surgery. Twelve endoscopic modified radical mastoidectomy were performed. Two patients presented with facial nerve palsy, one with dural sinus thrombosis, one with intracranial abscess, one with extradural abscess, two with labyrinthine fistula, one congenital cholesteatoma and one recurrent cholesteatoma. The surgical time ranged from 120-270 minutes. One patient (6.25%, n=16) have recurrence at 21st month, treated by transcanal endoscopic cholesteatoma removal under local anaesthesia, and remain recurrence free since then. One patient died due to pre-existing temporal abscess, 3 with small central perforations, 2 ears have attic perforations, 2 with sensorineural hearing loss and 2 with chorda tympani injury. There were five transient complications. Most patients retained / had improved hearing (9/13).

CONCLUSION

Endoscopic ear surgery was found to be safe technique for removal of middle ear / mastoid cholesteatoma with good result and good hearing preservation rate.

POSTER # P-114

PSEUDOMENINGOCELE OF THE EAR: A RARE CASE OF LATE POST-MASTOIDECTOMY COMPLICATION

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OBJECTIVE

To present a case of pseudomeningocele as a post-mastoidectomy complication and discuss its diagnostic and surgical management.

METHODS

Design: Case Report

Setting: Tertiary Government Hospital

Patient: One

RESULTS

A 31-year old male presented with right external ear canal mass with clear otorrhea ten years after a mastoid surgery for chronic suppurative otitis media. The persistence of the mass, otorrhea with episodic tonic-clonic seizures prompted consult. Temporal bone computer tomography (CT) and cranial with internal auditory canal (IAC) magnetic resonance imaging (MRI) revealed a large tegmen defect and a pseudomeningocele of the right ear with cerebrospinal fluid (CSF) leak. Transmastoid extradural approach was employed to repair the tegmen defect using multilayer autografts and blind sac closure.

CONCLUSION

Mastoid or middle ear surgery with tegmen defects may develop complications such as encephalocele, meningocele or pseudomeningocele and can present years after surgery. High resolution temporal bone CT scan and cranial MRI are complementary imaging necessary for diagnosis and surgical planning. A multidisciplinary team approach comprised of Otology-Neurotology, Neurosurgery and Neurology services was adapted in order to evaluate and manage the patient. Transmastoid extradural approach was performed to repair the tegmen defect and involved using multiple autografts such as conchal cartilage, temporalis muscle fascia, reinforced with temporalis muscle and abdominal fat graft to obliterate the mastoid cavity.

POSTER # P-115

A COMMON LESION IN AN UNUSUAL LOCATION: LIPOMA IN THE CEREBELLOPONTINE ANGLE

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OBJECTIVE:

To present a case of a lipoma in an unusual location in the cerebellopontine angle.

RESULTS:

An 11 year-old, female presented with hearing loss, left; with no associated signs and symptoms. Gross physical examination of both ears were normal. Pure tone audiometry revealed moderate-severe sensorineural hearing loss, AS, normal hearing threshold, AD. Further investigation with Magnetic Resonance Imaging of the brain and internal auditory canal yielded a hyperintense focus on pre-contrast T1 and T2-weighted imaging at the left cerebellopontine angle region, which has a consistent signal dropout with T2 fat saturation sequence consistent with Lipoma.

CONCLUSIONS:

According to Boie's, an acoustic schwannoma of the Cerebellopontine angle/internal auditory canal (CPA/IAC) should always be considered unless proven otherwise in patient's presenting with unilateral sensorineural hearing loss.¹

Moreover, a rare lipoma should also be considered as one of the differentials. A detailed history, physical examination with the aid of pure tone audiometry and magnetic resonance imaging are vital in establishing accurate diagnosis.

INTRODUCTION

Disabling hearing loss in children is a symptom frequently ignored by parents. It is a symptom often disregarded apart from otalgia or otorrhea; until symptoms are severe enough to be a burden in everyday life, moreover until it manifests with complications and even life-threatening conditions. Hearing loss can be a cause of a disruption on the conduction and/or processing of sound from the outer external ear to the inner ear to the brainstem. It is therefore concluded that it is a symptom of vast diseases affecting the organs of hearing.

The most common clinically used classification of hearing loss help physicians to narrow down impressions of its etiology. Basic topographic and functional distinction between conductive hearing loss versus sensorineural hearing loss are at outmost help. Its laterality further narrows down our impression. Bilateral Sensorineural Hearing loss have been well established with more than 50% cases attributable to genetic causes; while more than 50% of children with unilateral hearing loss have no identifiable cause.² Although almost always an acoustic schwannoma should always be considered unless proven otherwise in patient's presenting with unilateral sensorineural hearing loss.¹

CASE REPORT

An 11 year-old, female came in for a consult due to unilateral hearing loss, left; with no concomitant otalgia, otorrhea, fever, tinnitus, facial asymmetry, headache, vertigo and problems with balance. She was noted to have hearing loss at the age of 5 manifested by not responding to conversations, instructions and commands given to her. The condition persisted to be more pronounced and noticeable to be laterally isolated to the left ear. This prompted the parents to seek consult to an otorhinolaryngologist.

The patient is a Grade 5 pupil, who gets above-average grades in school. Her developmental skills are at par with her age. She seats most of the time in front of class to be able to hear her lessons. Otherwise, she claims to have cope and adjusted to her condition.

The patient had an unremarkable feto-maternal history. No previous history of ear infection. No history of trauma, hospitalizations, and surgical procedures. No history of primary complex or intake of ototoxic medications. She has no family history of hearing loss or malignancy.

During the initial consult, gross physical examination (Fig 1) and otoscopic findings revealed essentially normal findings. (Fig 2) Rhinoscopy, Oral Cavity and Oropharyngeal and Neck Exams were unremarkable. There were no noted facial asymmetry, House Brackmann Classification I. Cerebellar Function tests were unremarkable. The rest of the neurologic examinations were unremarkable.

Tuning fork test revealed Weber Right and Rinne Positive. This is suggestive of Sensorineural Hearing Loss, AS. Pure tone audiometry revealed Moderately Severe Sensorineural Hearing Loss, AS. Normal hearing threshold, Auris Dextra (AD). (Fig 3) During this time, written and expressed consent were instigated for the participation of the patient to a case report. (Fig. 4)

Further investigation with Magnetic Resonance Imaging revealed T1-T2 weighted with gadolinium contrast of the brain and internal auditory canal. The imaging revealed: A hyperintense focus approximately 0.4 x 0.6 x 0.7cm on pre- contrast T1 and T2-weighted imaging surrounding the facial and vestibulocochlear nerve at the left cerebellopontine angle region, which has a consistent signal dropout with T2 fat saturation sequence. There is no enhancement detected on the post contrast T1 fat saturation images. These radiographic features are consistent with Lipoma. (Fig 5)

In contrast with the most common vestibular schwannoma and meningioma. These lesions usually demonstrate T1 isointensity with avid gadolinium uptake while epidermoids do not enhance with contrast and are commonly hypointense on T1 and hyperintense on T2-weighted sequences.³

The characteristic magnetic resonance images seen along with the detailed patient's history and physical examination. It is sufficient to diagnose our case as: Lipoma in the Cerebellopontine Angle, AS. Owing to its benign symptomatology, radiographic characteristics, and high morbidity of biopsy or microsurgery.

Definitive removal of the lesion is reserved for tumor enlargement and noted intractable symptoms such as headache and facial asymmetry. The patient and her family members were counseled on the red flags to watch-out as we continue to monitor her condition through frequent follow-up and series of radiographic imaging.

CASE DISCUSSION

Internal Auditory Canal is a conduit for neurovascular structures such as vestibulocochlear nerve and facial nerve from the skull base to the inner ear and terminal branches of the face. The vestibulocochlear nerve leaves the brainstem as a homogenous nerve trunk and becomes visibly separated in the internal auditory canal. The vestibular nerve is located posteriorly, while cochlear nerve is located antero-inferiorly. The facial nerve is anatomically separated from the vestibulocochlear nerve, however approaches intimately to the internal auditory canal antero-superiorly. (Fig 6) The vestibulocochlear nerve predominantly contains afferent fibers for signal transduction from hair cells to the brainstem, while the facial nerve provides both afferent and efferent fibers to the nervous system.

Therefore, patients with lesions in the cerebellopontine angle/internal auditory canal (CPA/IAC) often presents with sensorineural hearing loss, tinnitus, dysequilibrium, and facial hypesthesia.⁴ These symptoms are often nonspecific. In our case, intracranial lipomas may clinically mimic vestibular schwannomas.⁷ Thus, the importance in implicating optimal imaging surveillance could not be emphasize enough.

Magnetic Resonance Imaging (MRI) with Gadolinium Contrast Enhancement is the “gold standard” in evaluating cerebellopontine angle and internal auditory canal mass (CPA/IAC)³ and is of vital importance to establish diagnosis and differentiate one lesion from the other.

CPA/IAC mass comprises an approximately 10% of intracranial tumors;⁵ an estimated 90% of these are acoustic neuromas/vestibular schwannomas and the remainder accounts to 1 to 3% namely meningiomas, primary cholesteatomas, facial nerve schwannomas, and other less common lesions such as lipomas and teratomas.⁴

Lipomas are one of the most common benign mesenchymal tissue neoplasms in our body, however, intracranially it occurs extremely rare which only accounts to 0.08%,³ moreover only 0.15% of these intracranial tumors are located in the CPA/IAC.⁶

In contrast, Lipomas of the CPA/IAC are not considered true neoplasms rather lipomas are congenital malformations that thought to may arise from abnormal differentiation of the meninx primitiva” (a mesenchymal derivative of neural crest) into adipose tissue during the development of subarachnoid cisterns.³ This theory might explain why lipomas engulf coursing neurovascular structures, as oppose to vestibular schwannomas and meningiomas, wherein neurovascular structures are pushed by the tumor.

The characteristic radiographic feature of CPA/IAC lipoma are hyperdensity in T1-weighted images that do not enhance with Gadolinium contrast administration. Hypo/isointense on T2-weighted images, paralleling subcutaneous fat. And a distinguishing signal drop in fat-saturated MRI relative to surrounding cerebrospinal fluid, orbital and subcutaneous fat.⁷ This is in contrast with other most common CPA/IAC mass as summarized in Table 1.

Due to its rarity, there are no current standard recommendations in the management of CPA/IAC lipomas. Lipomas feature of engulfing neovascular symptoms makes surgical removal unfavorable with

regard to functional outcome. Bigelow et. al. review of 52 patients who underwent microsurgery. 35 (67%) receiving subtotal and 17 (33%) gross total resection. 19% experienced improvement while 11% claimed to have unchanged symptoms, and over 68% have new neurological deficits. This appears to be a higher percentage than other CPA/IAC tumors.³

Hence, microsurgery is reserved for decompressing cranial nerves and the brain stem to control disabling neurologic symptoms such as vertigo, facial weakness, or hemifacial spasm. This can be achieved by retrosigmoid approach, the middle fossa approach, and the translabyrinthine approach.⁷ This is in contrast to vestibular schwannoma, which is more often addressed with surgery or stereotactic radiation therapy.⁴

Overall, majority of the literature suggest a conservative observation in addressing CPA/IAC lipoma. A “watch and scan” policy is often advocated, since lipomas are relatively stable and lesion progression is uncommon.³ In an analysis of the literatures, CPA/IAC lipomas showed no evidence of tumor growth within a period of observation ranging from 12 months to 18 years.⁷

Several studies suggest annual follow-up for adolescent patients and a single follow-up MRI scan three to five years following diagnosis for adults.⁸ The recommendations are reasonable since CPA/ IAC lipomas might fluctuate with growth and percent body fat of young populations. No studies have been done to associate body mass index and tumor behavior to come up with definitive conclusions.³ Along with imaging, a clinical watchfulness should be advocated to take into particular progression of neurootologic symptoms.

SUMMARY

Unilateral Sensorineural Hearing loss warrants a thorough investigation. More often than not, a CPA/IAC mass should be considered and evaluated.

Lipoma of the cerebellopontine angle is treated conservatively with a “watch and scan” policy due to its benign symptomatology and high morbidity following resection.

APPENDIX

Fig 1: Clinical photograph of the patient showing essentially normal gross physical examination of the ear.



Fig 2: Otoscopic findings revealed patent external auditory canal with intact translucent non-retracted mobile tympanic membrane

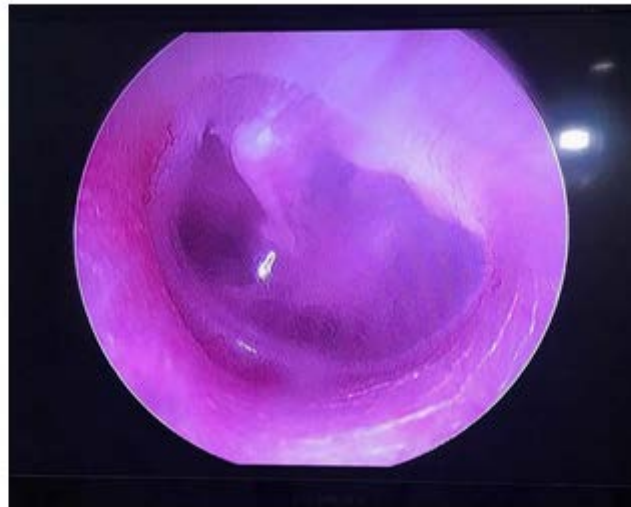


Fig 3: (A) WHO classification of hearing loss (B) Pure tone audiometry results of the patient revealed Moderately Severe Sensorineural Hearing Loss, AS. Normal hearing threshold, AD

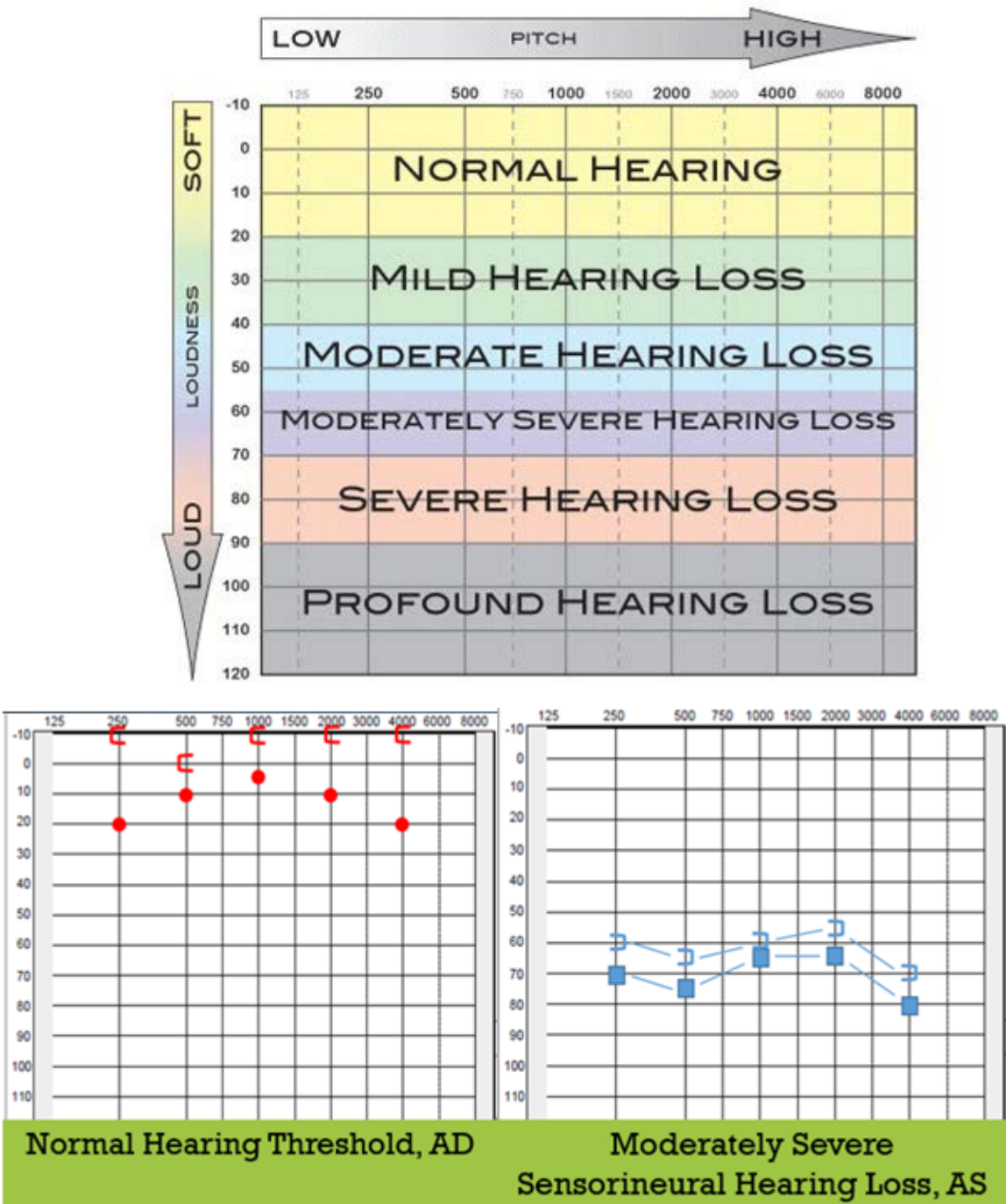


Fig. 4: Written Consent Form for Case Report signed by the patient's mother.

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October 25, 2017

CONSULTANT STAFF

[Redacted]

I, [Redacted] daughter of patient [Redacted] agree to participate in the study conducted by Dr. Emmanuela Dela Cruz, MD and Dr. Annabelle Asuncion entitled: Internal Auditory Canal Mass: A Case Report. I am fully aware of the information and disclosure regarding the study. I am giving my consent that this study be passed, more so be published to a national level. I give my trust and full assurance that my child's confidentiality is still of best interest.

[Redacted]

Signature over Printed Name
Relationship to the patient: daughter

WITNESS: [Redacted]

Signature over Printed Name

RESIDENT STAFF

[Redacted]

Fig 5: Magnetic resonance imaging 4 mm focus surrounding the internal auditory canal (IAC) at the cerebellopontine angle (CPA) (arrow). (A) Coronal pre- gadolinium T1-weighted image demonstrating a hyperintense CPA/IAC lipoma.

(B) T1-weighted sequences with gadolinium and fat suppression reveal signal loss within the previously hyperintense focus. (C) (A) Coronal pre-gadolinium T1- weighted image demonstrating a hyperintense CPA/IAC lipoma. (D) T1-weighted sequences with gadolinium and fat suppression reveal signal loss within the previously hyperintense focus.

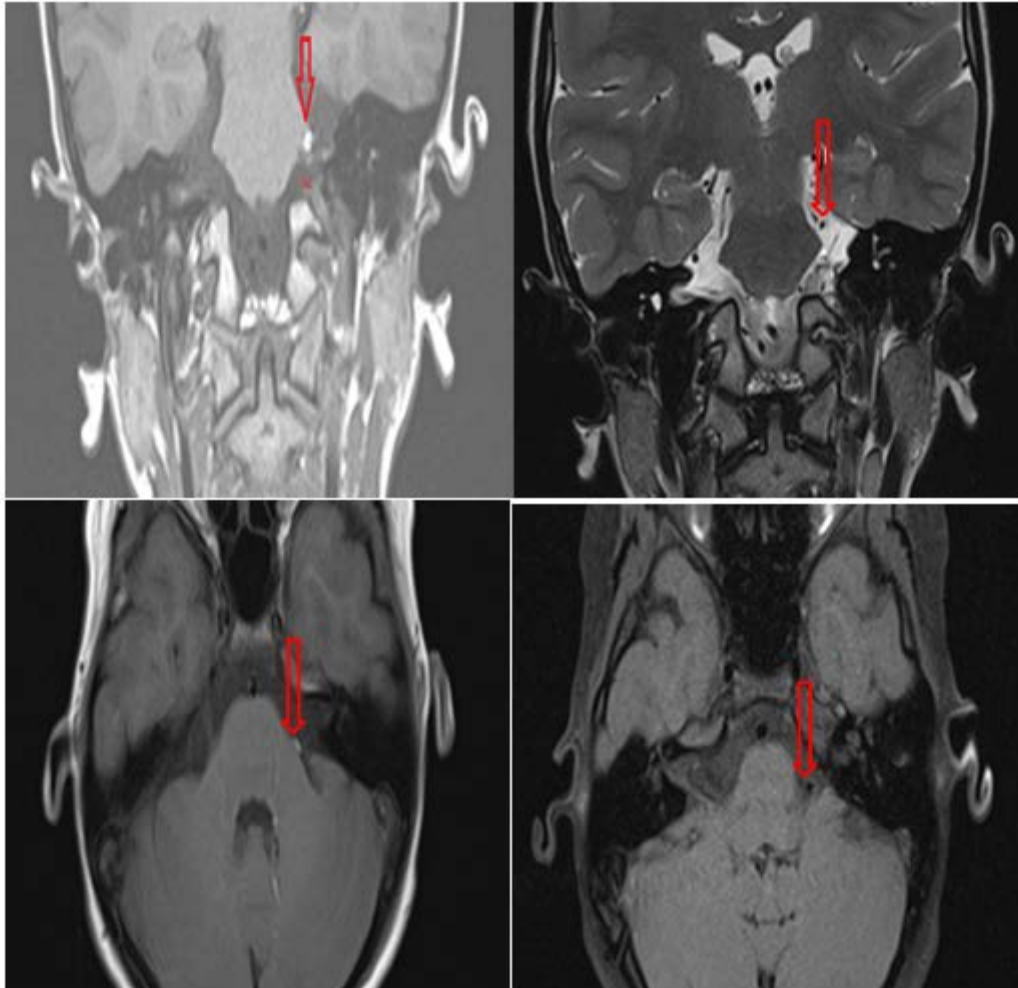


Fig 6: Cross section of the internal auditory canal

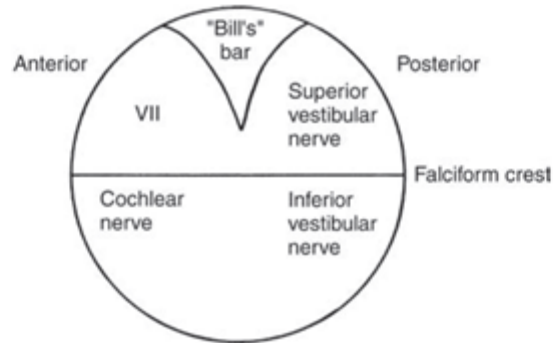


Table 1: Comparison between MRI Features of Lipoma with other common CPA/IAC lesions.

Feature	Vestibular Schwannoma	Meningioma	Cholesterol Granuloma	Lipoma
T1 weighted MRI	Isointense or <u>hypointense</u>	Isointense or <u>hypointense</u>	<u>Hyperintense</u>	<u>Hyperintense</u>
Gadolinium enhancement	Marked	Marked enhancement, <u>dural tail sign</u>		No enhancement
T2-weighted MRI	Isointense or <u>hypointense</u>	Isointense or slightly hyper intense	<u>Hyperintense</u>	Isointense or <u>hypointense</u>
Fat Suppression	Unchanged		<u>Hyperintense</u>	No signal

MRI: Magnetic Resonance Imaging

POSTER # P-116

EARLY INTERVENTION OF HEARING LOSS IN CHILDREN IS A NEUROLOGICAL EMERGENCY

INTRODUCTION

Hearing impairment is one of the most critical sensory impairments with significant social and psychological consequences. Children with profound sensorineural hearing loss are at significant risk for serious speech and language delays that can impact their communication, academic and social development.

OBJECTIVE

The goal of early intervention is to minimize the adverse effects of non-amplified hearing loss.

DISCUSSION

Implementation of universal newborn hearing screening programs and advances in the technology available to improve the hearing experience has led to an era of new possibilities. Over a decade Cochlear implants have become widely accepted as an aid to exposing the deaf child's auditory system to a quality of sound experience not available with hearing aids alone. It is a known fact that cochlear implantation under the age of 3 years, longer duration of implant use are the most important factors that contribute to better speech and language outcomes. Failure to detect hearing loss early results in lifelong deficits in speech and language acquisition, socio-personal and behavioural problems. Recent studies have shown that early diagnosis and intervention of congenital deafness before the age of 6 months have better outcomes than those intervened after 6 months of age.

CONCLUSION

It's not about hearing alone- it's about brain development. Early intervention and referral are pivotal to the development of speech and hearing skills in children with hearing loss before their auditory system reaches neural plasticity. Each year lost to deafness significantly reduces the comprehension and expressive skills.

Keywords: Congenital deafness, Universal newborn hearing screening, Cochlear implant.

POSTER # P-118

CASES OF INTRACTABLE MENIERE'S DISEASE: MANAGEMENT WITH MINIMALLY INVASIVE RETROSIGMOID APPROACH (MIRA) TO VESTIBULAR NERVE SECTION - OUR EXPERIENCE.

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INTRODUCTION:

Meniere's disease classically affects middle aged adults and elderly with a triad of low frequency unilateral nerve deafness, tinnitus and vertiginous attacks. Proposed and most accepted theory of etiopathogenesis being endolymphatics hydrops which eventually leads to fibrosis of labyrinth. Vertiginous episodes are due to rupture of endolymphatic sac membrane which causes mixing of potassium rich endolymph with potassium poor perilymph. Influx of potassium causes depolarisation of vestibular nerve end thereby causing vertigo and nystagmus.

CASE PRESENTATION:

Case 1: 60 year old female, known case of left Meniere's disease for 3 years. No relief with medications. Increased intensity of symptoms for past 1 year. Offered the option of vestibular nerve section, which patient readily accepted.

Case 2: 70 years old male, known case of left Meniere's disease. Had undergone endolymphatic sac surgery 9 years ago. Post-operatively he was asymptomatic until last year following which he developed incapacitating vertigo. Counselling for vestibular nerve section.

TREATMENT:

Left vestibular nerve section by minimally invasive retrosigmoid approach (MIRA) was done in both the cases and completely recovered in 1 week post surgery.

CONCLUSION:

The main aim of vestibular nerve section is to relieve intractable and debilitating vestibular symptoms while the hearing is preserved. Retrosigmoid approach provides a better exposure of VII and VIII nerve complex in Cerebello Pontine Angle and lowers incidence of CSF leak. Considering high success rate, excellent access and low complication rate this can be the best modality in treating intractable Meniere's disease in cases of failure of medical treatment.

POSTER # P-119

EFFICACY OF INTRATYMPANIC HIGH DOSE METHYLPREDNISOLONE COMPARED TO INTRATYMPANIC HIGH DOSE DEXAMETHASONE IN TREATMENT OF IDIOPATHIC SUDDEN SENSORINEURAL HEARING LOSS.

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OBJECTIVES

Determine the efficacy of high dose intratympanic methylprednisolone (ITM) compared to intratympanic dexamethasone (ITD) in treatment of idiopathic sudden sensorineural hearing loss (ISSNHL) utilised as either primary or salvage treatment.

MATERIALS AND METHODS

Prospective study of patients referred to our centre with new ISSNHL for primary or salvage treatment following a 3-week course of systemic steroid therapy. Twenty patients were recruited into ITD group and ten patients into the ITM group. Each patient had a ventilation tube (VT) placed into the affected ear to facilitate intratympanic delivery of steroids. Four doses of either 25 mg/mL dexamethasone or dose equivalent 125 mg/mL methylprednisolone were administered through the VT weekly over 1 month. Response was assessed with pure tone audiometry which was performed weekly during treatment and at 6-and 12-months post treatment.

RESULTS

Hearing was completely restored within 10 dB of the unaffected ear in 20% of patients given ITM. The remaining 37.5% of patients given ITM showed a partial recovery in hearing and the rest showed modest or no improvement in hearing. Patients with low-moderate frequency hearing loss who were administered ITM within 8 weeks delay of onset of symptoms showed the most improvement. No side effects were noted. No significant improvement in hearing was noted in the ITD group.

CONCLUSION

Our pilot study has shown patients with low-moderate frequency ISSNHL benefit from salvage ITM, with a 20% complete recovery in hearing and remaining 37.5% partial recovery in hearing when treated within 8 weeks delay of onset of symptoms.

POSTER # P-122

VALIDATING PCR QUANTIFICATION FOR PATHOGEN DETERMINATION IN CHRONIC SUPPURATIVE OTITIS MEDIA WITH HIRA-TAN METHOD

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OBJECTIVES

Pathogen identification has been challenging in Chronic Suppurative Otitis Media (CSOM). The recurrent nature, negative culture and misuse antibiotic in developing countries may conceal the true pathogen. The pathogen identification by quantitative PCR with human cell as the internal control (HIRA-TAN method) in Community Acquired Pneumonia can be similar applied. This study objective was to preliminary investigate the utility of HIRA-TAN method in CSOM pathogen identification.

MATERIALS AND METHODS

During December 2016 to January 2017, all CSOM patients in ENT outpatient clinic at dr. Zainoel Abidin Hospital, Banda Aceh, Indonesia were enrolled. The otorrhea swab collection was managed for microbiological culture and HIRA-TAN method. A multiplex TaqMan assay were performed with 16 common pathogens. The cycle threshold difference between pathogen and human (ΔC_t pathogen) was the index for defining the pathogen. The ROC curve analyses was performed to validate the cut-off values.

RESULTS

Thirty-nine patients ranging 1.7 to 62 years old were enrolled. The hearing impairment was found different in children and adult ($p < .005$) by *Fisher's exact test*. The pathogen found by the culture in 14 samples (35.9%) culture were *P. aeruginosa*, *K. pneumoniae*, *P. mirabilis*, and *M. morganii*. The ΔC_t pathogen cut-off for *P. aeruginosa* were 3.33 (90%, 100%); *K. pneumoniae* were 1.71 (85%, 100%); and *Proteus sp.* were 8.29 (90%, 100%). Multiple pathogen detected with negative culture result were *B. fragilis*, *A. baumannii*, *M. catarrhalis*, and *E. coli*.

CONCLUSION

Current molecular technique enables to determine the pathogen by using the cut-off values for certain pathogen. Multiple other pathogen detection and other cut-off values investigation require further larger study.

POSTER # P-123

BALLOON DILATATION FOR EUSTACHIAN TUBE DYSFUNCTION IN WESTERN AUSTRALIA, A PILOT STUDY

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OBJECTIVES

There is emerging overseas evidence that balloon dilatation of the eustachian tube (ET) can be effective treatment for eustachian tube dysfunction (ETD) as compared to medical therapy.¹ Balloon dilatation has not yet been performed in WA until now and we present the results of our pilot study.

MATERIALS AND METHODS

A prospective cohort study was conducted in Perth, WA. Thirteen adult patients were identified with a clinical diagnosis of ETD and at least one symptom on the Eustachian Tube Dysfunction Questionnaire (ETDQ), that had failed medical management of ETD. Primary outcomes included assessment of ETDQ scores, tympanometry and pure tone audiometry (PTA). At the time of writing, eight patients had undergone trans-nasal balloon dilatation with six-week follow-up results available.

RESULTS

Eight patients were included, the majority female (n=6) and the average age of the cohort 55 years. All eight underwent balloon dilatation and demonstrated significant improvements in ETDQ scores at the six-week follow up. The mean post-operative ETDQ score for all patients included was 1.9 compared to 4.9 pre-operatively (indicative of symptomatic relief). Tympanometry and PTA findings for all patients were unchanged.

CONCLUSION

Our early experiences with balloon dilatation of the ET for ETD are encouraging demonstrating significant symptomatic relief six weeks post-procedure, without any complications or side effects.

POSTER # P-124

TARGETED NEWBORN SCREENING FOR CONGENITAL CYTOMEGALOVIRUS-RELATED HEARING LOSS – A PILOT PROJECT

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OBJECTIVES

Congenital Cytomegalovirus infection (cCMV) is the most common cause of preventable sensorineural hearing loss, occurring in 0.5% of all live births. Overall, it is estimated to cause 8% of all hearing losses and up to 20% of all idiopathic hearing loss. Despite this there is no screening for cCMV in most countries. Treatments such as antiviral medications can potentially prevent permanent hearing loss when given within 30 days of birth. This requires early screening before 3 weeks of age to accurately diagnose cCMV. This study will review the literature supporting the need for newborn cCMV screening and introduce a landmark study we are about to undertake in Western Australia.

MATERIALS AND METHODS

This study will run over two years and enrol infants who fail their newborn hearing screen to undergo cCMV saliva testing. Infants who test positive for the virus will be followed to determine the natural history of their clinical progression and hearing loss. The study will also measure the incidence of cCMV infection and to determine if early antiviral therapy is effective.

RESULTS

This study has the potential to determine if routine early screening and therefore early treatment for cCMV related hearing loss can improve outcomes. This could transform the management of congenital sensorineural hearing loss in the region and contribute knowledge to this emerging field.

CONCLUSIONS

Newborn cCMV screening is a viable option and should be pursued in order to diagnose and potentially treat the most common cause of preventable hearing loss. We urge other ASEAN countries to undertake a similar study.

POSTER # P-125

THE INCIDENCE OF COCHLEAR NERVE ANOMALIES IN PAEDIATRIC SINGLE SIDED DEAFNESS

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OBJECTIVES

Single sided deafness cochlear implantation is an emerging treatment option for children with congenital hearing loss. The aim of this study is to describe the incidence of cochlear nerve anomalies in patients with asymmetrical sensorineural hearing loss as part of the workup for cochlear implantation.

MATERIALS AND METHODS

This was a retrospective case series in a tertiary referral centre. Paediatric patients with bilateral or unilateral sensorineural hearing loss, or unilateral deafness, who were investigated with Magnetic Resonance Imaging (MRI) were examined retrospectively. The incidence of cochlear nerve hypoplasia or aplasia were examined as well as the incidence of other anatomical abnormalities.

RESULTS

Of the 72 patients with unilateral sensorineural hearing loss, 39% (28 cases) had absent or hypoplastic cochlear nerves on the affected side. 15% (11 cases) had other abnormal findings on MRI. 84 patients had bilateral sensorineural hearing loss of which cochlear nerve hypoplasia or aplasia was identified only in 5% (4 cases). Other abnormal findings were identified in 12 cases.

CONCLUSION

Paediatric patients with unilateral sensorineural hearing loss are more likely to have cochlear nerve anomalies than those patients with bilateral sensorineural hearing loss. This has important implications in the management of patients with congenital single sided deafness where cochlear implantation requires the presence of a functioning cochlear nerve.

POSTER # P-126

FALSE POSITIVE DIFFUSION WEIGHTED MRI IN THE DETECTION OF CHOLESTEATOMA

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OBJECTIVES

Cholesteatoma is a common inflammatory middle ear process characterised by trapped keratinous debris within a squamous epithelial sac exhibiting autonomous growth and bony erosion. Although the diagnosis of cholesteatoma is predominantly made on clinical grounds, the utilisation of diffusion-weighted imaging (DWI) on magnetic resonance imaging (MRI) has been increasingly utilised to detect cholesteatoma with very high sensitivity and specificity in the diagnosis and follow up after cholesteatoma surgery. However cases of false positive results have been poorly reported or identified. The aim of this paper was to review a group of patients with confirmed false positive DWI and review the various aetiologies and clinical presentation.

MATERIAL AND METHODS

A retrospective case based review of 12 identified patients was undertaken. Data on the clinical features, imaging, and intraoperative samples obtained were collated. In all patients, the presence of DWI positivity within the cohort was considered as a likely case of cholesteatoma in which surgical treatment was then recommended. The supposed cholesteatoma tissue was collected for histopathology.

RESULTS

There are various unique aetiologies identified which have been shown in our series to result in a false positive DWI, Some of these have never been reported in the literature including ceruminous adenoma, cholesterol granuloma, ceruminous debris, chronic inflammatory tissue and inclusion epidermoid. In all cases, the pre-clinical suspicion for cholesteatoma was intermediate

CONCLUSION

In assessing the MRI DWI scan results for cholesteatoma it is important to consider the possibility of a false positive result.

POSTER # P-127

RADIOLOGICAL FINDINGS IN SPONTANEOUS CEREBROSPINAL FLUID (CSF) OTORRHOEA

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- 3- Department of Medical Imaging, Perth Children's Hospital, Perth, Australia
- 4- Department of Otolaryngology Head and Neck Surgery, Sir Charles Gairdner Hospital, Perth, Australia

OBJECTIVES

Spontaneous cerebrospinal fluid otorrhoea (sCSF) occurs in the absence of an identifiable cause. There appears to be an increased incidence of sCSF possibly related to an obesity epidemic. Prompt and accurate diagnosis is essential but remains difficult due to the subtle clinical presentation. Radiology is often a key objective test, This study aims to describe the radiological findings in patients presenting with sCSF.

MATERIALS AND METHODS

A retrospective cohort study was conducted in Western Australia with twenty-eight patients included between 2013-2018. Baseline demographics and radiological features identified on CT and MRI were collected. These included: tegmen defect sizes and locations, fluid within the middle ear or mastoid, degree of mastoid development, and evidence of idiopathic intracranial hypertension (IIH).

RESULTS

There was a female predominance (n=17) with a mean age of 66 years. All patients underwent a CT and/or MRI. Despite only two patients presenting with bilateral CSF leaks, bilateral defects were identified in 26 patients. Anterior tegmen mastoidectomy defects were most common with an average size of 2.6mm (range 1-9mm). Most patients had fluid present in the middle ear or mastoid but cephaloceles were rare (3.5%). Only three patients had strong evidence for IIH.

CONCLUSIONS

This study is in contrast to the literature in that only a minority of patients had radiological evidence of IIH indicative that this pathology may contribute to but is not the sole cause of sCSF. Bilateral defects were extremely common which is cause for concern given most patients presented with unilateral leaks.

POSTER # P-129

HEARING LOSS IN AGEING ETHNIC CHINESE SINGAPOREANS: A POPULATION BASED STUDY

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OBJECTIVES

This study investigated the prevalence and profile of hearing loss among participants in the Singapore Longitudinal Ageing Study (SLAS), a population-based longitudinal study of ageing and health of community-dwelling Singaporeans >55 years.

METHODS

244 subjects (160 female, 84 male; mean age 71.6 years) were included. Pure tone audiometry was performed using an automated audiometer. First spoken language (L1) was recorded.

RESULTS

45.1% of participants had hearing loss. The degree of hearing loss based on better ear pure tone average air conduction thresholds at 0.5, 1, 2 and 4kHz (4FA) was mild (26-40dB) in 35.3%, moderate (41-70dB) in 9% and severe to profound (≥ 71 dB) in 0.8%. Better ear 4FA ranged from 6 to 90dB. Asymmetry between the better and worse ears (≥ 15 dB) was present in 4.8%. Conductive hearing loss (4FA ABG ≥ 15 dB) in at least one ear was present in 7.9%. Only 17% of the 10.9% of subjects with a disabling hearing loss of >40dB 4FA wore a hearing aid. Univariate analysis demonstrated that 4FA was first language dependent (English 4FA 26.5dB, SD 13.5; Mandarin 4FA 32.1dB, SD 15.9; Cantonese 4FA 36.2dB, SD 19.1; Teochew 4FA 37.0, SD 8.7; Hokkien 4FA 41.1dB, SD 20.8).

CONCLUSION

Audiological features that may indicate significant pathology were present in a minority of subjects. Despite the prevalence of hearing loss in older Singaporeans, the uptake of hearing rehabilitation is extremely low. Further studies of other risk factors for hearing loss among dialect speaking groups are warranted.

POSTER # P-130

OSSICULOPLASTY WITH OSSICLE VS. CARTILAGE- FUNCTIONAL OUTCOMES ACHIEVED WITH DIFFERENT METHODS OF OSSICULOPLASTY

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OBJECTIVES:

To study:

- The hearing outcome.
- Factors affecting successful outcome of ossiculoplasty.
- Functional outcomes achieved with different methods of ossiculoplasty.

MATERIALS AND METHODS:

Fulfilling the inclusion criteria, Ossiculoplasty was performed on 100 patients suffering from CSOM, age ranging from 5 to 75 years and conductive loss of ≥ 25 dB; obtaining ethical clearance from the committee. Pre-operative assessment included: chief complaints, pre-operative audiogram, status of ear; intra-operatively: type of ossicular defect and the disease, the surgery performed, ossicular-reconstruction material and postoperative follow up after 4th month to assess hearing and functional outcomes.

RESULTS:

All cases had eroded incus and stapes suprastructure was present in 62% cases. Mean pre-operative, post-operative PTA was 49.02 and 32.62 respectively. Mean pre-operative, post-operative AB gap was 38.18 and 17.93 respectively. The gain in Air Conduction Threshold and in AB gap was 17 dB and 21 dB respectively. Clinically, ossicular graft was superior to cartilage graft, statistically insignificant though. Success rate in intact stapes supra structure was 53% but without stapes suprastructure exhibited 25% success rate. No association was observed between the type of CSOM and the outcome post ossiculoplasty. However, MSA had better outcome followed by myringostapedopexy and myringoplastinopexy.

CONCLUSION:

The study shows significant hearing improvement with ossiculoplasty. Prognostic factors for successful outcome were use of autologous ossicle, pure conductive hearing loss pre-operatively and intact stapes suprastructure. Functional outcomes obtained were hearing gain ≥ 20 dB, with better results with MSA, myringostapedopexy, myringoplastinopexy in decreasing order; dry ear, no recurrence, and no extrusion of the graft.

POSTER # P-177

FALSE POSITIVE DIFFUSION WEIGHTED MRI IN THE DETECTION OF CHOLESTEATOMA

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INFORMATION / BACKGROUND

- Cholesteatoma is a common inflammatory middle ear process characterised by trapped keratinous debris within a squamous epithelial sac exhibiting autonomous growth and bony erosion. Although the diagnosis of cholesteatoma is predominantly made on clinical grounds the utilisation diffusion-weighted imaging (DWI) on magnetic resonance imaging (MRI) has been increasingly utilised to detect cholesteatoma with very high sensitivity and specificity. However rare false positive cases have been reported and identified.
- The aim of this study was to review a group of patients with confirmed false positive DWI with a focus of identifying the various aetiologies and clinical characteristics.

MATERIALS AND METHODS

- A retrospective case based review of 13 patients was undertaken. Data on the clinical features, imaging and post-operative histopathology was collated and presented.

RESULTS

- There are various unique aetiologies identified for false positive DWI, some of which have never before been reported in the literature including **ceruminous adenoma**, **cholesterol granuloma**, **ceruminous debris** and **chronic inflammatory tissue** (table 1 & figures)
- 8 of the 13 patients had history of previous otological surgery.

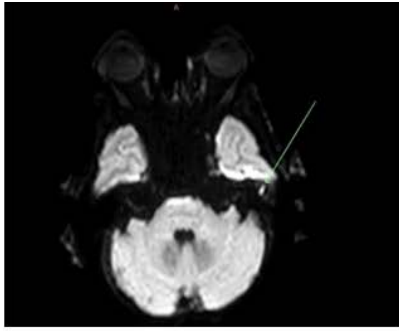
CONCLUSION

- In assessing MRI DWI for cholesteatoma, especially in the setting of previous surgery, it is important to consider the possibility of false positive result.

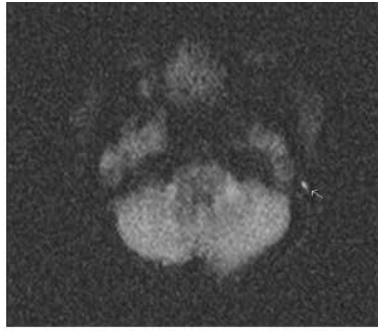
TABLE 1

	Cause
Fitzek C, Mewes T, Fitzek S, et al . Diffusion-weighted MRI of cholesteatomas of the petrous bone. J Magn Reson Imaging 2002;16:636-41	Acute otitis media
Dubrule F, Souillard R, Chechin D, et al Diffusion-weighted MR imaging sequence in the detection of postoperative recurrent cholesteatoma. Radiology 2006;238:904-10	Bone powder
Jeunen G, Desloovere C, Hermans R, et al The value of magnetic resonance imaging in the diagnosis of residual or recurrent acquired cholesteatoma after canal wall-up tympanoplasty. Cef Neurotol 2008;29:16-18	Scar tissue
Venail F, Bonafe A, Poirier V, et al Comparison of echo-planar diffusion-weighted imaging and delayed postcontrast T1-weighted MR imaging for the detection of residual cholesteatoma	Silastic sheet
Venail F, Bonafe A, Poirier V, et al Comparison of echo-planar diffusion-weighted imaging and delayed postcontrast T1-weighted MR imaging for the detection of residual cholesteatoma	Granulation tissue
Kölsing S, Bootz F CT and MR imaging after middle ear surgery. Eur J Radiol 2001;40:113-1	Cholesterol granuloma
THIS STUDY	Ceruminous adenoma Cholesterol granuloma n = 4 Ceruminous debris Chronic inflammation n=2 Non specific inflammation

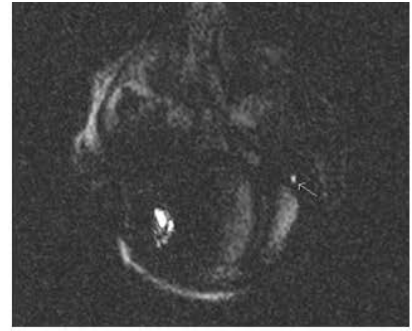
FIGURES



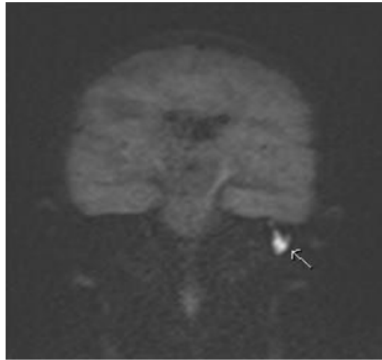
Ceruminous adenoma



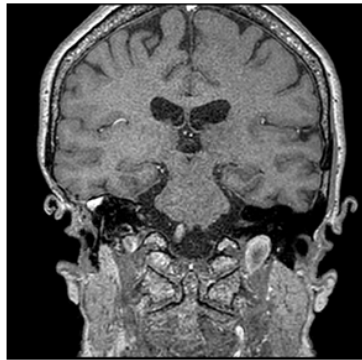
Cholesterol granuloma



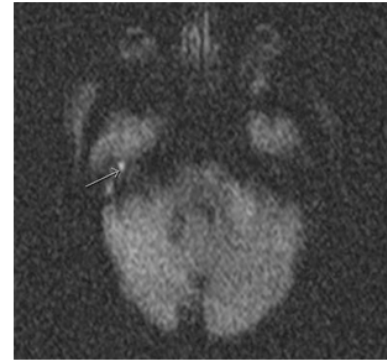
Non specific inflammation



Ceruminous impaction in
mastoid cavity



Cholesterol granuloma right
side



No cholesteatoma or abnormality seen,
middle ear mucosa corresponding to
area

POSTER # P-178

BONEBRIDGE SURGERY IN YOUNG CHILDREN

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- 2- Department of Audiology, Perth Children's Hospital, Perth, Australia

OBJECTIVES

The Bonebridge bone conduction implant is approved for children as young as 5 years of age. Given the size of the BC-FMT, there have been perceived limitations of its use in young children due to the expected lower degree of mastoid pneumatisation. We present our experience with children implanted with the device, including the youngest recipient of the device in Australia to date.

MATERIALS AND METHODS:

Eleven patients receiving the Bonebridge implant at our institution are presented between 4.5 years to 14 years of age. Three patients were aged between 4.5 and 5.5 years. The indications included single sided deafness, chronic suppurative otitis media, microtia (including Goldenhar syndrome). In all patients, potential sizing of the BC-FMT was assessed by comparing its size to the degree of mastoid air-cells pneumatisation on temporal bone CT scanning.

RESULTS:

All patients including our youngest recipient were considered to have adequately pneumatised mastoids to facilitate insertion. Most patients required a 1mm and 2mm lift kit to allow fitment to the temporal bone curvature and in the majority, the sigmoid sinus and dura were identified and skeletonized. In a 10-year-old patient, the sigmoid sinus and middle cranial fossa were decompressed which surprisingly was not required in our youngest patient. All patients had significant improvements in aided thresholds and there were no surgical complications.

CONCLUSION

The Bonebridge implant can be used successfully in children just under the recommended age of implantation. Mastoid air cell pneumatisation rather than age alone should be considered in determining candidacy.

POSTER # P-184

FACTORS DETERMINING REGULAR HEARING AID USE IN THE ELDERLY

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OBJECTIVES

Presbycusis management with hearing aids involves a series of health behaviours including seeking hearing assessments, acquiring hearing aid, and subsequent regular use. Since the introduction of the International Classification of Functioning, Disability and Health, audiology practitioners have started to consider presbycusis beyond the audiogram. This study aims at identifying factors determining regular hearing aid use among elderly in Hong Kong.

MATERIALS AND METHODS

The cross-sectional study used a questionnaire to collect information on self-perceived hearing handicap, attitudes towards hearing loss, hearing aid outcomes, satisfaction, and demographics. Severity of hearing loss was assessed by pure tone audiometry. The study sample comprised 86 Chinese aged 60 years or above, with sensorineural hearing loss, from private audiology clinics in Hong Kong.

RESULTS

The mean age of participants was 78 years old; with the majority (82.6%) had at least moderately severe hearing loss. More than three-quarters (75.6%) of participants had behind-the-ear hearing aids and binaural rate was 37.2%. Results of binary logistic regression analysis found that impact on others, positive effects of amplification, severity of hearing loss, coupling with the suppression effect of morning walk as daily activities, were significant factors determining longer daily hours of hearing aid use.

CONCLUSION

Perceived benefits associated with impact of presbycusis on others was found to be a strong factor determining regular hearing aid use in elderly, alongside other factors. This novel finding has provided audiology practitioners emergent evidence to consider the role of significant others in optimal presbycusis management with hearing aids.

POSTER # P-185

CHRONIC SUPPURATIVE OTITIS MEDIA IN PATIENT WITH COCHLEAR IMPLANT; ONE-STEP SURGERY

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ABSTRACT

BACKGROUND.

Chronic suppurative otitis media (CSOM) in patients with cochlear implant were report in some cases. The infection may spread along the main electrode into scala tympani.

OBJECTIVE.

This case report has purpose to discuss the management of CSOM in patient with cochlear implant.

CASE.

Female, 4 years old with unilateral implantation on the right ear in October 2015. At the time of surgery was found middle ear effusion. In the middle year of 2017, there was recurrent infection and resolve with antibiotic. Evaluation on August 2018 showed the main electrode has been exposed into ear canal. The second white marker ring is clearly seen and the dacron mesh is positioned medial to the electrode. CT scan shows the length of intra cochlear electrode is 21 mm. The first marker is at round window or cochleostomy site and the second marker is at tympanic membrane level. The revision done in one-step. The surgery begins with remove all infected tissue in mastoid cavity and middle ear followed by cartilage tympanoplasty. Intra cochlear electrode explant and the new electrode implant directly. Evaluation after surgery, tympanic membrane was intact and hearing evaluation after switch on show the same result with the hearing before surgery.

CONCLUSION.

Middle ear effusion is the sign of risk of CSOM in patient with cochlear implant. One-stage operation for explant and re implant the new electrode in patients cochlear implants with CSOM will reduce costs and can provide the same hearing result.

POSTER # P-186

DETECTION OF HEARING IMPAIRMENT ASSOCIATED WITH POSITIVE RUBELLA ANTIBODY TEST IN WAHIDIN SUDIROHUSODO HOSPITAL AMONG 2016 TO JUNE 2019

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INTRODUCTION

Rubella infection can affect several organs and cause birth defects that are responsible for congenital rubella syndrome (CRS). Infants with CRS often present with more than 1 sign or symptom consistent with congenital rubella infection. However, infants may present with a single defect, with hearing impairment being the most common single defect.

OBJECTIVE

To perform the screening of hearing impairment using OAE test and its correlation to rubella antibody test IgG and IgM.

MATERIAL AND METHOD

The data were conducted using comprehensive search from medical record department in Wahidin Sudirohusodo Hospital from January 2017 through June 2019. Inclusion criteria were those who tested OAE and undergoing screening rubella antibody test.

RESULT

The total sample were 58 ears which consist the result by OAE test with 30 pass (51.7%) and 28 refer (48.3%). Among these ears there were 5 pass and 17 refer with Rubella antibody IgG positive IgM positive, 19 pass and 9 refer with Rubella antibody IgG positive IgM negative, 4 pass and 0 refer with Rubella antibody IgG negative IgM negative, and 0 pass and 2 refer with Rubella antibody IgG negative and IgM positive.

CONCLUSION

The results of the screening showed that patients who had hearing impairment according to the OAE test results refer within Rubella antibody IgG positive, IgM positive as many as 17 out of 23 ears (77.3 %). For further examination should be perform BERA and ASSR to plan the using of hearing aid or cochlear implant.

POSTER # P-187

OUTCOMES OF CARTILAGE GRAFT ENDOSCOPIC MYRINGOPLASTY; A RETROSPECTIVE REVIEW

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OBJECTIVES

To investigate the outcome of endoscopic myringoplasty using tragal cartilage or a composite tragal cartilage/perichondrium graft in the surgical management of inactive mucosal chronic otitis media. Outcomes are measured in terms of surgical closure of the perforation and improvement of mean audiometric air-bone gap.

METHODS AND MATERIALS

A retrospective study on transcanal endoscopic myringoplasty from 2016- 2019 in a tertiary health care centre. Case records from the ORL clinic were reviewed. Data was collected and tabulated according to size of perforation, graft type, underlay or overlay method and post-operative closure of perforation. Pre and postoperative mean air-bone gap at 3 months measured at 500 Hz, 1 kHz and 2 kHz was calculated.

RESULTS

Of the 73 number of patients 44 were females and 29 were males. Mean age was 39.6. In 73 ears 60 ears achieved complete closure. 12 were revision surgeries. The mean air bone gap pre- operatively was 26.06 dB. The average air bone gap post operatively was 17.15. The average improvement of air bone gap was 8.91. 61 number of overlay method and 12 number of underlay method. The success rate was 82%.

CONCLUSION

Endoscopic myringoplasty with tragal cartilage success rate was 82% in this series. This is comparable to conventional microscopic approach.

POSTER # P-188

PEDIATRIC LATERAL SINUS THROMBOSIS CAUSED BY ACUTE MASTOIDITIS

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OBJECTIVES

To be wary of lateral sinus thrombosis as a rare complication of acute mastoiditis which can readily occur in the younger pediatric age group.

MATERIALS AND METHOD

Computed tomography imaging features were suggestive of right sided mastoiditis. It was further complicated with extensive venous thrombosis from the sigmoid – transverse sinus up to the right internal jugular vein.

RESULTS

Radiologic examination showed long segment filling defect of the right internal jugular vein. The right sternocleidomastoid appeared bulky and heterogenous. The right mastoid air cells were filled with fluid and poorly aerated.

CONCLUSION

We wish to highlight a case of lateral sinus thrombosis as a result of mastoiditis. The treating physician and the reporting radiologist should always bear in mind such entities especially when dealing with limited history from an ill child.

POSTER # P-189

FACTORS RELATED TO QUALITY OF LIFE IN ELDERLY IN URBAN AREA SURAKARTA INDONESIA

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OBJECTIVE:

Health problem and poor quality of life are biggest problems which become main focus in elderly, but still be a neglected issues especially in developing countries. The association between quality of life and its related factors among elderly were investigated in this study.

MATERIAL AND METHODS:

This cross sectional study was conducted on 70 elderly in primary health care in Surakarta from June to August 2019. Hearing impairment according to World Health Organization (WHO) was defined as a pure-tone average of the thresholds at 0.5, 1, 2, and 4 kHz > 25 dB Hearing Level for the better ear. Information concerning potential confounders including hypertension ,diabetes mellitus, visual impairment and sleep disorder was obtained by interview. World Health Organization Quality of Life Instruments (WHOQOL-BREF) used to measure QOL, consists of 4 domains , physical health , psychological , social relationships , and environment . Statistical analysis using Eta test and multiple linear regresion analysis.

RESULTS:

Majority of the participants were male, mostly in 60-64 y.o age group, 47.1% had moderate hearing impairment (mean 46.6 dB).Overall meant score of QOL was found to be average, with the lowest mean score was physical domain and the highest was environment domain. Hypertension and visual impairment were found to be significant factors in physical and social relationship domain of WHOQOL, while only sleep disorder was found to be significant in psycological domain of WHOQOL. Hearing impairment was significantly associated with environment domain of WHOQOL.

CONCLUSION:

Increasing health awareness in elderly by using hearing aid, wearing glasses, control of hipertension and diabetes mellitus also giving intervention to improve sleep disorder will increase quality of life among them

Paediatric ORL

POSTER # P-072

GILAL CHORISTOMA: AN UNUSUAL CASE OF A CONGENITAL TONGUE MASS IN A NEONATE

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Department of Radiology, Perth Children's Hospital, Perth, Western Australia, Australia.

OBJECTIVES

To describe an unusual case of glial choristoma in a neonate who presented with a large congenital lateral tongue lesion.

MATERIALS AND METHODS

This was a case report of a female neonate who presented at 3 weeks of life with a large mass at the right lateral tongue. The mass was diagnosed when patient presented with feeding difficulties. On examination, a large 1.5cm mass was noted arising from right lateral border of the tongue, sparing tongue base and floor of mouth. The mass was firm, immobile and non-pulsatile. Overnight oximetry revealed no desaturations. There was no airway compromise, however light snoring was noted during admission. Patient underwent a MRI head and an incisional biopsy. Intraoperatively a fleshy, poorly vascular lesion was noted. Histopathology examination found the mass to be a glial choristoma. Patient is planned for elective complete excision of lesion.

RESULTS

Glial choristoma of the tongue is an extremely rare entity. Currently only a few case reports have described this congenital malformation on the tongue. The clinical behavior of oral glial choristoma varies depending on the age at onset as well as the location and size of the mass.

CONCLUSION

Glial choristoma is a rare and interesting diagnosis for congenital tongue lesions. It is benign in nature but there is a risk of airway compromise and obstructive sleep apnoea in neonates and infants. Physicians should be aware of it as a differential in congenital tongue lesions and its management options.

POSTER # P-073

BACTERIOLOGY OF THE ADENOID AND ASSOCIATION WITH CLINICAL PRESENTATION IN PEDIATRIC PATIENTS WITH ADENOID-RELATED DISEASES

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OBJECTIVES

To study the bacterial culture of the adenoid, and to explore the relationship of adenoid bacteriology with adenoid size and clinical presentation.

MATERIALS AND METHODS

Bacterial cultures of the adenoid obtained from adenoidectomy from August 2005 to December 2018 were reviewed. The adenoid sizes were measured in the lateral skull x-ray. Association between culture results and the diagnosis, age group and adenoid-nasopharyngeal ratio were analysed.

RESULTS

We reviewed 407 pediatric cases who underwent adenoidectomy for otitis media, obstructive sleep disorder and chronic sinusitis. Median age was 5.9 years and 60.9% of the patients were between 3 to 7 years old. Six most common pathogenic bacteria were *Haemophilus influenzae* (26.2%), *Staphylococcus aureus* (23.5%), *Streptococcus pneumoniae* (18.2%), *Moraxella catarrhalis* (12%) and *Streptococcus pyogenes* (2.37%). Significant association was found between younger age group and higher prevalence of *Streptococcus pneumoniae* ($p < 0.001$). *Moraxella catarrhalis* was most prevalent in patients between 3-7 years old. Higher prevalence of *Staphylococcus aureus* was associated with increasing age ($p = 0.002$). *Haemophilus influenzae* had similar prevalence in all age group. *Streptococcus pyogenes* was the only bacteria that had significant association with adenoid size greater than 70% ($p = 0.017$). Diagnosis of adenoid-related diseases had no association with types of bacteria in the adenoid culture.

CONCLUSION

Pathogenic bacteria was found in the adenoid of children with adenoid-related diseases. The diagnosis had no association with any particular bacteria from the culture. Age group had significant association with *Streptococcus pneumoniae* and *Staphylococcus aureus*. Greater size of the adenoid had significant association with *Streptococcus pyogenes*.

POSTER # P-074

THE TREND OF CLEFT CARE AT A CHILDREN'S REFERRAL CENTER IN THAILAND

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OBJECTIVE

To investigate the trend in cleft care at a major children's referral center in Bangkok, Thailand.

STUDY DESIGN

Retrospective chart review.

SUBJECTS AND METHODS

A review of one-hundred twenty-nine patients under 18 years of age who had underwent care by the Senior author for cleft treatment between January of 2015 to October of 2017 was done. The impact of varying factors on patient care was analyzed. We compare our demographics and treatment timeline to that of previously published literature in more developed countries.

SETTING

Tertiary care medical center.

RESULTS

One hundred and two patient charts were reviewed with 53% male patients. Most patients had both cleft lip and palate, 44%. Cleft lips most commonly were complete and occurred on the left side. 77.4 percent of cleft were non-syndromic. On average, primary cleft lip surgery was performed before three months of age (2 months, 24 days). Sixteen percent of patients were treated with an obturator, while 11 patients had NAM use. Hearing screenings occurred on average at around six months of age. Abnormal tympanograms were evident in 32 percent of individuals. There was no statistical significance in timing of surgery for patients who lived a distance greater than 30 kilometers from the hospital versus those from Bangkok. ($p > 0.05$)

CONCLUSION

Reviewing data from a high-volume referral center in Thailand reveals little variance with regards to cleft care timing compared to published literature from the developed world. Distance was found to not have an impact on delay to surgery for patients living outside of the city.

POSTER # P-075

NECROTIZING FASCIITIS IN THE PEDIATRIC HEAD AND NECK: CASE REPORT AND REVIEW OF THE LITERATURE

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OBJECTIVE

To present an interesting case and review the literature regarding pediatric necrotizing fasciitis in the head and neck.

MATERIALS AND METHODS

We discuss an interesting case of necrotizing fasciitis (NF) involving the parotid gland occurring in a four-year old Burmese female secondary to *Chromobacterium violaceum*. The patient suffered from quick deterioration leading to sepsis, and disseminated intravascular coagulation. Following appropriate diagnosis, aggressive debridement, antibiotic treatment, and resuscitation led to successful treatment of the infection. We follow by then reviewing the literature regarding incidence, common pathogens, and appropriate treatment strategies for this rare entity. Literature analysis of case reports was performed. PUBMED was searched for the terms "pediatric necrotizing fasciitis", and "necrotizing fasciitis in the head and neck."

RESULTS

A review of NF in the pediatric population found only 25% presented in the head and neck. A total number of 15 cases of pediatric necrotizing fasciitis in the head and neck region have been reported in the English literature. We reviewed a total of 13 manuscripts, of which 12 were case reports. Nearly half (41%) of cases reported Group A beta-hemolytic Streptococcus (GAS) as the causative organism. The mortality rate from pediatric NF of the head and neck region is quoted as 17%. The average age of patients with NF in the head and neck region was 4.5 years.

CONCLUSION

Pediatric necrotizing fasciitis remains a rare and deadly infection in the head and neck. Effective management of the disease involves early and aggressive surgical debridement along with broad spectrum antibiotics and nutritional support.

POSTER # P-076

DIAGNOSIS OF PEDIATRIC FEEDING DIFFICULTIES: A SERIAL CASE REPORT

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OBJECTIVES

Swallowing is a complex sensorimotor process involving the mouth, tongue, pharynx, larynx, and esophagus. Interference of this process results in feeding difficulties. In children, feeding difficulties should be taken seriously because of the impact on child development, which could reduce their quality of life. Disorders of feeding difficulties occur when children are unable or find it difficult to eat or drink the quantities required to maintain an optimal nutritional status.

MATERIALS AND METHODS

We reported three cases of pediatric feeding difficulties influenced by various factors such as patient's condition, the delayed introduction of age-appropriate food consistencies by parents, and the environment. The diagnosis were confirmed by history taking and fiberoptic endoscopic evaluation of swallowing.

RESULTS

All three cases had demonstrated feeding difficulty in the oral phase but no abnormalities of the pharyngeal phase. Two patients kept refusing to eat while other showed an uncooperative gesture with tongue propulsion. All cases are managed by increasing parents' awareness about eating habit, food modification based on their age to attract the appetite. Oromotor exercises was performed when medical issues are identified and controlled, and issues of postural alignment and support have been addressed.

CONCLUSION

Evaluation swallowing function should be carried out which plays a role in diagnosing the case. Combination of eating habit, oromotor exercise, and food modification to improve nutritional status are the main goals of treatment.

POSTER # P-077

SURGICAL AND ANESTHETIC MANAGEMENT OF TRACHEOBRONCHIAL FOREIGN BODY REMOVAL : CASE REPORT

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OBJECTIVES

Tracheobronchial foreign body (FB) is a common surgical emergency in childhood. It can result in serious morbidity and mortality if management is delayed. One should raise the suspicion when there is suggestive history of foreign body ingestion or aspiration.

CASE PRESENTATIONS

This 11 years old girl complained of foreign body ingestion and odynophagia but was suspected to have aspirated the foreign body as foreign body was shown in the airway from the lateral view of neck X-ray. Examination with flexible laryngoscope confirmed the foreign body lodged in the trachea. Rigid bronchoscopy was performed under general anesthesia to remove the foreign body. After gas induction, the foreign body was found dislodge further down to the right secondary bronchus. In this case, inhalation and intravenous anesthesia with spontaneous ventilation were applied throughout the procedure. The foreign body was successfully removed with optical forceps. Patient was discharged well 48 hours post-operation.

CONCLUSION

In cases of suspected foreign body aspiration, two views plain radiograph is the most cost-effective and useful in aids of diagnosis. Rigid bronchoscopy is a challenging procedure which is remained as gold standard technique for diagnostic purpose and removal of foreign body. In addition, the anesthesia in managing airway foreign body is challenging as there is high risk of hypoxemia during the 'shared airway' while performing bronchoscopy. Hence, communication between anesthesiologist and surgeon is essential for optimal outcome.

POSTER # P-078

FOREIGN BODY ASPIRATION-OUR EXPERIENCE IN PAEDIATRIC POPULATION

INTRODUCTION

Foreign body airway is a common cause of morbidity and mortality in children. Virtual bronchoscopy is a new investigative technique useful in locating non radiopaque FB missed on plain radiography.

OBJECTIVES

To study the clinical profile of patients with suspected foreign body aspiration and to evaluate the changing trends in the diagnosis and quicker management of foreign body aspiration as a way of virtual bronchoscopy.

METHODS

This was a retrospective and prospective cross sectional study conducted in the Department of otorhinolaryngology M.G.M.C &M.Y hospital Indore for a period of ten years. The medical records of patients with foreign body aspiration, from august 2006 to September 2016 were reviewed. Data was collected regarding their clinical presentation ,examination and chest x-ray, virtual bronchoscopy, rigid bronchoscopy findings. Patients with suspected foreign body aspiration were subjected to virtual bronchoscopy and rigid bronchoscopy was performed.

RESULTS

In the 150 subjects, we observed mean age group of presentation was 2.1 years, Male to female ratio was 4.1, 70% of the cases came from the rural areas,86% were vegetative foreign bodies, and remaining non vegetative were aspirated mostly during the winter season. Betel nut was the most common aspirated foreign body.63% had a positive history of foreign body aspiration, where as 37% had a negative history .Right main bronchus was the most common site of lodgement. Breathlessness and reduced air entry were the most common symptoms and signs. We also observed, that chest radiograph were normal in as many as 40% cases. Hence negative chest radiographs does not rule out FB. In 150 patients with foreign body aspiration, which was detected by virtual bronchoscopy ,148 patients were diagnosed to have foreign body on rigid bronchoscopy . This amounts to a positive predictive value of 97.3% which was similar to the positive predictive value of rigid bronchoscopy which was 99%.

CONCLUSION:

Virtual bronchoscopy is the only imaging modality which gives 99.9 % reassurance about the presence or absence of a foreign body ,because of its high sensitivity and specificity ,hence proves to be a life saving tool.

POSTER # P-079

PEDIATRIC ADENOID MEASUREMENT COMPARED AMONG LATERAL SKULL FILM, FLEXIBLE ENDOSCOPY, AND INTRAOPERATIVE RIGID TELESCOPY

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OBJECTIVE

To investigate the correlation among adenoid size measured by lateral skull film, flexible endoscopy, and intraoperative rigid endoscopy.

MATERIALS AND METHODS

A cross-sectional study was conducted in 43 pediatric patients who presented for ENT surgery during July 2017-December 2018. All patients underwent preoperative lateral skull film, flexible endoscopy, and intraoperative rigid endoscopy.

RESULTS

The average adenoidal-nasopharyngeal (A/N) ratio from lateral skull film, flexible endoscopy, and intraoperative rigid endoscopy was 72.9, 79.5, and 81.6, respectively. There was a moderate correlation between A/N ratio from lateral skull film and intraoperative rigid endoscopy (Pearson's correlation: 0.567, $p < 0.001$). Whereas, the A/N ratio from flexible endoscopy compared to intraoperative rigid endoscopy yielded a strong correlation (Pearson's correlation: 0.791, $p < 0.001$). From linear regression analysis, intraoperative adenoid measurement was estimated from the result of flexible endoscopy (intraoperative nasal telescope: $0.72 [\text{flexible endoscopy}] + 24.47$). Intraoperative adenoid size was also estimated from lateral skull film (intraoperative nasal telescope = $0.65 [\text{lateral skull film}] + 34$).

CONCLUSION

Flexible endoscopy is an accurate method for adenoid measurement and nasopharynx visualization with no radiation exposure. Although less accurate, the benefits of lateral skull film include availability in every hospital for general doctor, and our correlation in this study can be applied to obtain the actual size measurement of adenoid gland.

POSTER # P-080

TONGUE TERATOMA IN A NEWBORN

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OBJECTIVES

Oral cavity mass in a newborn can compromise the airway. Despite its benign characteristic, tongue teratomas have a high death rate due to airway obstruction. This case aims to emphasize the importance of a multidisciplinary team adept to manage such situations.

MATERIALS AND METHODS

A 2-day old male was referred to our institution for a tongue mass. He was born full term, appropriate for gestational age to a then 27 year old G1P0, via low segment Cesarean section in a provincial hospital. Upon delivery, there was an ~10 cm widest diameter mass attached to the tongue. There was no respiratory distress noted, and the APGAR score was 9, 9. The patient was then transferred to our institution.

RESULTS

At 6 days old, excision with primary closure was done. The mass measured 10 x 8 x 4 cm, multilobulated with solid and cystic components. Final histopathologic result showed mature cystic teratoma.

CONCLUSION

A multidisciplinary team including an obstetrician, neonatologist, otorhinolaryngologist, and anesthesiologist, must be formed immediately after the findings of such an anomaly. A possibility of respiratory distress at birth should be anticipated, therefore a quick and well-executed life-saving procedure to protect the airway, including intubation, tracheostomy, or ex utero intrapartum technique (EXIT) must be ready. It is thru a multidisciplinary approach that we can carefully and appropriately plan, manage, and ensure the safety and welfare of our patients, as well as convert a potentially fatal airway obstruction into a more controlled setting for the delivery of the baby.

POSTER # P-081

A CASE REPORT ON A 4-MONTH OLD FEMALE WITH SUBGLOTTIC HEMANGIOMA TREATED WITH PROPRANOLOL

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OBJECTIVES

To describe the first reported case of infantile airway hemangioma successfully treated with propranolol.

MATERIALS AND METHODS

This is a case report. The setting is a tertiary hospital in the Philippines.

RESULTS

The patient is a 4-month old female who initially presented with stridor at three weeks of life. The patient eventually underwent tracheostomy for progressive difficulty of breathing. Direct laryngoscopy revealed a smooth, reddish, soft, compressible submucosal bulge on the right subglottic area almost completely obstructing the airway with a Cotton-Myer grade of 3. She was treated with propranolol with an initial dose of 0.15mL/kg (0.6mg/kg) twice daily, eventually increased to 0.4mL/kg (1.7mg/kg) twice daily. She underwent monthly follow ups and serial endoscopies. After 11 months of propranolol, repeat endoscopy revealed a subglottic narrowing of < 50% (Cotton-Myer Gr. I). The patient was eventually decannulated.

CONCLUSION

Airway hemangioma remains a challenging disease entity in the field of Otorhinolaryngology. The utility of propranolol in treating infantile hemangioma has just been recently established. Its advantages over other modalities include being non-invasive, of rapid onset, avoids tracheostomy, prolonged steroid therapy, manipulation of subglottic tissues or prolonged periods of intubation. It is now considered a safe and effective alternative treatment. In the future, propranolol may prove to be the best medical treatment for subglottic hemangioma.

POSTER # P-192

BILATERAL CHOANAL ATRESIA IN A 14 YEAR OLD MALE: A CASE REPORT

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OBJECTIVES

To present a case of a 14-year-old male with persistent bilateral nasal discharge, congestion and hyponasal voice. Patient has no history of respiratory distress after birth but mother had difficulty in feeding the infant. On physical examination, patient's face is long and narrow, with prognathism and open mouth. Lips are pursed and dry.

MATERIALS AND METHOD

Anterior rhinoscopy was done which showed a bilaterally discharging nostrils with congested turbinates. Nasal endoscopy showed medial bowing of both lateral nasal wall, atretic bilateral choana, with thickened posterior septum. Radiologic imaging revealed a thin membrane separating the nasal cavity from the nasopharynx at the level of pterygoids and the vomer is thickened which confirmed the diagnosis. Patient underwent Endoscopic Posterior Septectomy.

RESULTS

Repeat endoscopy was done one year post-op which showed a bilaterally patent choana. There was air passage on both nostrils with absence of mucous discharge. Patient's voice was still hyponasal but was described to be improved.

CONCLUSION

Bilateral Choanal Atresia in an adolescent is a rare condition. It is diagnosed after birth since newborns are obligate nasal breathers. Signs and symptoms include increased breathing efforts and chest retractions, followed by cyanosis. The initial management in acute cases is endotracheal intubation. They would present with adenoid facie, chronically congested nose with thick mucus discharge. Nasal endoscopy coupled with CT scan must be done to confirm the diagnosis. The definitive treatment is surgery. Endoscopic sinus surgery is still the most common and successful method for repair of choanal atresia.

POSTER # P-193

ACCURACY OF AIRWAY/NASOPHARYNGEAL RATIO (A/N RATIO) MEASUREMENT ON LATERAL NECK RADIOGRAPHY IN DIAGNOSING PEDIATRIC ADENOID HYPERTROPHY: AN EVIDENCE-BASED CASE REPORT

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ABSTRACT

OBJECTIVES:

Adenoid hypertrophy is a common occurrence in paediatric otolaryngology, often causing nasal obstruction, snoring, and mouth breathing. Complications may lead to impaired development in children. Nasoendoscopy has been defined as the reference test for adenoid hypertrophy, but this specific tool can hardly be found in rural health facilities of archipelago countries. Alternatively, A/N ratio measurement on lateral neck radiography can be used to establish the confident diagnosis of adenoid hypertrophy.

MATERIALS AND METHODS:

Literature searches in three databases (PubMed®, Cochrane® and EBSCO®) were accomplished using “adenoid hypertrophy”, “radiography”, and their synonyms as keywords. Inclusion and exclusion criteria were implemented to select the appropriate studies. The chosen studies were appraised using the VIA (validity, importance, applicability) criteria to determine their qualities.

RESULTS:

Three primary studies with good validities revealed that A/N ratio of lateral neck radiography had sensitivity value of 17% – 41% and specificity value of 86% – 98%. High specificity indicated that A/N ratio measurement method is a decent tool to confirm the diagnosis in patients who were suspected of having adenoid hypertrophy. Therefore, this tool can be utilized as an alternative of nasoendoscopy to establish the diagnosis of adenoid hypertrophy, even though its diagnostic value would not be able to replace nasoendoscopy as a reference test.

CONCLUSION:

This report has proven that A/N ratio measurement method can be easily applied by ENT specialists, especially those working in rural health facilities where advanced equipments are rarely accessible, to confirm the diagnosis of adenoid hypertrophy.

POSTER # P-194

A CASE REPORT OF TRACHEOSTOMAL MYIASIS (CHRYSOMYA BEZZANIA LARVAE) IN A 7-YEAR OLD BOY

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INTRODUCTION

Myiasis is the infestation by dipterous larvae feeding on the host's tissues. It can be attributed to multiple factors, most importantly poor sanitation. This paper aims to present a case of a 7-year old boy with tracheostomal infestation by *Chrysomya bezziana* larvae. There are only a few reported cases of Tracheostomal myiasis. An article reviewing related literature from 1990-2015 only resulted 11 reported cases.

CASE PROTOCOL

A 7-year old boy was brought for consult due to foul odor from the tracheostoma. 3 years prior, he underwent tracheostomy for prolonged intubation for gunshot injury to the head. Four days prior, patient developed foul odor from the tracheostoma, with associated pain. During the consult, upon close inspection of the tracheostoma, there was foul gray discharge, tenderness and erythema of the surrounding skin, and multiple live maggots.

MANAGEMENT AND OUTCOMES

Patient underwent tracheostoma exploration, debridement, removal of foreign body, and change of tracheostomy tube. A total of 143 maggots were removed. After 48 hours of antibiotics and tracheostomy care, there was neither erythema nor discharges. Flexible fiberoptic endoscopy revealed no more presence of foreign body, but glottic adhesions were noted. Future plans include microlaryngeal surgical removal of glottis adhesions and decannulation.

CONCLUSION

Prognosis is good with total elimination of larvae and debridement. Tracheostomal care is of utmost importance. Although extremely rare, otorhinolaryngologists must still be aware of myiasis. As a rare case report, this paper will add more information regarding myiasis.

POSTER # P-195

NASAL HIRUDINIASIS: A RARE CASE OF RECURRENT EPISTAXIS IN A SEVEN YEAR OLD FEMALE

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ABSTRACT

OBJECTIVE:

To present an interesting case of Nasal Hirudiniasis in a 10-year old female with recurrent epistaxis. The paper highlights and emphasizes thorough, proper history taking and physical examination that's essential in accurately diagnosing a disease. The need for an early referral to an Otorhinolaryngologist and proper diagnostics for appropriate analysis and early intervention in preventing possible complications.

METHODS:

Design: Case Report

Setting: Tertiary Government Hospital

Patient: One

RESULTS:

A 10-year-old female presented with a one-year history of daily, unprovoked epistaxis, accompanied by nasal obstruction at nighttime and a sensation of a moving foreign body in the nasal cavity. Video endoscopy revealed a moving dark colored entity at the middle meatus. Removal of the foreign body revealed a leech in three separate occasions. Computer tomography of the paranasal sinuses done after the second episode of leech removal, revealed a hypodensity on the left maxillary sinus. Patient underwent nasal endoscopy with creation of left antral window and left maxillary sinus exploration under general anesthesia, ruled out the presence of leech in the sinus. The fluids that were collected as specimen for pathology verified the absence of leech eggs.

CONCLUSION

Nasal hirudianiasis should be considered by Otorhinolaryngologist and must be included in the differential diagnosis of patients presenting with recurrent unprovoked epistaxis with nasal congestion; most especially with a history of intake and immersion in fresh bodies of water or lives near fresh water springs. Early detection and removal of nasal hirudianiasis is essential in preventing airway compromise leading possibly to death.

Rhinology, Allergy & Skull Base Surgery

POSTER # P-131

A STUDY TO ASSESS THE STRUCTURAL INTEGRITY OF THE NEILMED® SINUS RINSE™ BOTTLE FOLLOWING REPEATED MICROWAVE DISINFECTION CYCLES.

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OBJECTIVES

To assess the changes in the structural integrity of the NeilMed® Sinus Rinse™ following repeated microwave cycles to inform on how frequently these bottles have to be changed.

METHODS

To mimic real-life conditions, the bottle was rinsed under running tap water. Excess water was shaken off before being placed in a microwave. The bottles were subjected to either 90 or 120 seconds microwave for 50, 100, 150, 200 and 250 cycles respectively. Tensile and compression testing was undertaken at the end of each prescribed microwave duration and number of cycles. Tensile testing was reported as yield strength (defined as the stress at which a material begins to deform plastically) while compression testing was reported as stiffness (defined as the extent to which a material resists deformation in response to an applied force).

RESULTS

Changes in yield strength was noted after 90 seconds, 100 cycles and 120 seconds, 50 cycles compared to a non-microwaved bottle. The stiffness of the bottle gradually decreased with incremental microwave cycles. After 250 microwave cycles at 90 seconds, stiffness was significantly lower compared to a non-microwaved bottle. At 120 seconds, stiffness was significantly lower after 200 cycles.

CONCLUSION

Although changes thermoplastic properties were identified, it is unknown at what microwave cycle the bottle loses its flexibility to generate sufficient volume and pressure head. Assuming patients rinse twice daily and microwave decontaminate the bottles after each use, the data does not support any revisions in the manufacturer's recommendation to change the bottles every three months.

POSTER # P-132

THE RELATIONSHIP BETWEEN THE SINO-NASAL OUTCOME TEST (SNOT-22) AND NASAL OBSTRUCTION SYMPTOM EVALUATION (NOSE) IN PATIENTS REQUIRING SEPTAL SURGERY FOR NASAL OBSTRUCTION

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OBJECTIVES

To assess the relationship between the Sino-Nasal Outcome Test (SNOT-22) and Nasal Obstruction Symptom Evaluation (NOSE) scale in order to provide greater understanding of the quality-of-life domains assessed by the SNOT-22 instrument.

METHODS

Patients on the waiting list for septoplasty with or without inferior turbinate surgery. Pre-operative SNOT-22, NOSE, peak nasal inspiratory flow (PNIF) were evaluated

RESULTS

Sixty patients (male = 34), with the mean age of 39.3 years were included in this study. The mean NOSE score was 84.0 (Standard deviation, SD 14.2) and SNOT-22 was 52.5 (SD 23.3). The mean PNIF was 85.3 L/min (SD 35). There was strong correlation ($r = 0.72$) between the total SNOT-22 and NOSE scores ($p < 0.05$). Both sleep dysfunction and psychological issues domains of the SNOT-22 had strong, statistically significant correlation ($r = 0.77$ and 0.75 respectively) with the NOSE score. Although the rhinologic symptoms domain correlated significantly with the NOSE score, this relationship was moderate ($r = 0.48$). However, the correlation between the extranasal rhinologic domain and the NOSE score was weak ($r = 0.32$, $p < 0.05$). There was a weak and non-significant correlation ($r = -0.27$) between SNOT-22 score and PNIF.

CONCLUSION

The routine use of both the NOSE and SNOT-22 is supported by this study. The total SNOT-22 score correlated highly with the NOSE score although the rhinology specific domains of the SNOT-22 did not. Other variables (sleep, psychological dysfunction) may also serve as key drivers for patients to seek treatment.

POSTER # P-133

SINUS FUNGUS BALL IN THE KOREAN POPULATION: IMAGING CHARACTERISTICS OF 55 CASES

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BACKGROUND

Central dark-signal intensity with high-signal, hypertrophic mucosal wall of sinuses on T2-weighted images is a characteristic MRI feature of sinonasal fungus ball. However this finding is usually interpreted as non-fungal sinusitis with central sinus air. We evaluated the usefulness of T1-weighted images for detecting fungus balls comparing with CT and T2-weighted MRI findings.

METHODS

Two reviewers assessed preoperative CT and MR images of 55 patients with pathologically confirmed fungus balls. Reviewers evaluated the presence and patterns of calcifications on CT. Overall signals and the presence and extent of certain signals of fungus balls on MRI were also assessed. The relationship between calcifications and MRI signals was evaluated.

RESULTS

All patients had dark signal portions with high signal, hypertrophic mucosal walls on T2-weighted images. Also, most patients showed iso- to hyper-intense overall signals on T1 weighted images and had T1-weighted high signal portions on MRI. The presence, patterns, and location of calcifications had no significant correlation with T1-weighted high-signal intensity portion.

CONCLUSIONS

Fungus ball can be suggested by the presence of the hyper-signal intensity portions in the fungal mass on T1-weighted images in conjunction with dark-signal lesions surrounded by high-signal, hypertrophic mucosal walls in paranasal sinuses on T2-weighted images.

POSTER # P-134

ACUTE UNILATERAL MAXILLARY ATELECTASIS FOLLOWING ENDOSCOPIC PITUITARY SURGERY

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OBJECTIVES

Chronic maxillary atelectasis is traditionally described as a rare, acquired condition of progressive antral wall collapse causing a reduction in maxillary sinus volume. This is thought to be secondary to ostiomeatal obstruction and development of negative intra-sinus pressure gradients. Maxillary atelectasis occurring rapidly after pituitary surgery, despite a normal pre-operative CT scan, has not previously been described in the literature.

MATERIALS AND METHODS

We present a case of a 29-year-old male with facial pressure two months post endoscopic transnasal, transsphenoidal excision of a Rathke's cleft cyst. CT of the paranasal sinuses at five months post-operatively demonstrated evidence of an atelectatic left maxillary sinus, which was not present on pre-operative imaging. He underwent endoscopic uncinectomy and middle meatal antrostomy with complete resolution of symptoms.

RESULTS

To our knowledge, this is the first case in the literature describing acute development of maxillary atelectasis following pituitary surgery, where the maxillary sinus was not addressed during the initial operation. While lateralisation of the middle turbinate causing ostiomeatal obstruction may lead to sinus atelectasis, it is typically a slow process and seen in the context of chronic disease. Review of the literature has demonstrated six cases of documented rapid-onset atelectasis of maxillary sinuses.

CONCLUSION

This case represents the first in the literature of acute, post-operative unilateral maxillary atelectasis following pituitary surgery. Acute maxillary atelectasis is a rare entity, which can be successfully managed with minimally invasive sinus surgery. Consideration should be made to incorporate acute cases into the classification system of maxillary atelectasis.

POSTER # P-136

OUTCOME OF ENDOSCOPIC SINUS SURGERY FOR THE TREATMENT OF INVERTED PAPILLOMA OF NASAL CAVITY AND PARANASAL SINUS

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OBJECTIVE

The Objective of this study was to study the outcome of endoscopic sinus surgery for the treatment of inverted papilloma of nasal cavity and paranasal sinus.

MATERIALS AND METHODS

Retrospective analysis of patients with inverted papilloma operated at ORL-H&S Hospital, Yangon Myanmar in 2017 - 2018. Thirty patients suffering from inverted papilloma of the nasal cavity and paranasal sinuses are included in this prospective study. In my study, twenty-four patients undergone Functional Endoscopic Sinus Surgery (FESS) alone and six patients undergone FESS in combined with medial maxillectomy.

RESULT

Five out of thirty patients were recurrent cases of inverted papilloma. Apart from them, there were no recurrence of inverted papilloma during the study period. Post-operative histology report revealed only inverted papilloma. Most commonly affected sinus is maxillary sinus (60%) , ethmoid sinus (30%) and frontal sinus(10%). Both side are equally affected. Male to female ratio is 1.3 : 1.

CONCLUSION

Endoscopic surgery has been proved to be successful even in the treatment of large lesions affecting the posterior ethmoid sinus. This surgical technique which remains minimally invasive and thus retains the paranasal bony framework, preserves unaffected mucosa, capable of rapid recovery, and prevents damage to the patients` cosmetic appearances.

POSTER # P-137

CRANIOPHARYNGIOMA IN AN EXTREMELY RARE LOCATION: A CASE REPORT

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OBJECTIVE

To describe the occurrence of a purely infrasellar craniopharyngioma in the nasopharynx presenting as nasal obstruction, epistaxis and headache in a 22 year old female

RESULTS

Rigid nasal endoscopy showed a fleshy, smooth, firm mass with prominent blood vessels in the right nasal cavity extending from the middle turbinate to the nasopharynx. Contrast-enhanced CT scan of the paranasal sinuses demonstrated a fairly-defined, heterogeneously enhancing nasopharyngeal mass with calcifications extending to the sphenoid sinuses. Scope-guided punch biopsy of the nasopharyngeal mass considered a salivary gland neoplasm (basaloid adenoma versus basaloid squamous cell carcinoma). Another slide review indicated that the neoplastic cells seen cannot rule out ameloblastoma and craniopharyngioma. Subsequently, the cranial MRI with contrast that was done revealed that the nasopharyngeal mass had no intracranial extension. The neurohypophysis, sella and parasellar regions were unremarkable. Endoscopic wide excision of the mass was performed. The final histopathology report was craniopharyngioma.

CONCLUSION

This report highlights that in a case of nasal obstruction due to a nasopharyngeal mass without neurologic deficits, differential diagnosis should include an infrasellar (e.g. nasopharyngeal) craniopharyngioma. It is a rare tumor in an extremely rare location. To date, this is the 14th reported case of a purely infrasellar craniopharyngioma worldwide. Work up should include biopsy, paranasal sinus CT scan, cranial MRI and endocrine studies if indicated. Complete excision is the accepted treatment at present. Close post-operative surveillance with imaging studies is warranted due to the possibility of recurrence. The prognosis and behavior of infrasellar craniopharyngiomas have yet to be identified.

POSTER # P-138

CASE REPORT ON LARGE FRONTOETHMOIDAL MUCOCELE: TREATMENT AND REVIEW

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OBJECTIVES

The aim was to present our experience in treatment of frontoethmoidal mucocoele and to review the disease based on literature and our own experience.

MATERIALS AND METHODS

Case study of a patient with frontoethmoidal mucocoele, operated at ORL-HNS hospital Yangon in May 2019. In this case report we describe a 25-year-old man who presented with left sided diplopia, eye pain and displacement of globe laterally and inferiorly for 3 years. Computed tomography showed that bilateral frontal sinuses and left ethmoid sinuses are enlarged and filled with enhancing soft tissue density causing widening of frontal ostium and frontal recess. Left lamina papyracea was eroded by this soft tissue lesion which compresses the left orbit and medial rectus muscle causing proptosis of left orbit. Endoscopic sinus surgery under general anaesthesia was done.

RESULTS

Diplopia and left eye pain were resolved after endoscopic sinus surgery. There were no perioperative and postoperative complications.

CONCLUSION

Frontoethmoidal mucocoeles are benign lesion and prone to recurrence if not managed adequately. The choice of the operative procedure for treatment of paranasal sinus mucocoele depends on the degree of extension. Surgery is the only effective treatment and functional endoscopic sinus surgery is the standard of choice of frontoethmoidal mucocoeles.

Keywords: Frontoethmoidal mucocoele, Endoscopic sinus surgery

POSTER # P-139

CASE REPROTS ON JUVENILE NASOPHYRANGEAL ANGIOFIBROMA (JNA)

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BACKGROUND

Juvenile Nasopharyngeal Angiofibroma (JNA) is a rare benign tumour in adolescent males. It may be associated with significant morbidity because of its anatomical location and its locally destructive growth pattern. Severe haemorrhage constitutes a high risk in JNA and its surgical management could be complex.

OBJECTIVE

The aim was to present our experience in treatment of JNA, focusing on the type of surgical approaches used and to review the disease based on literature and our own experiences.

STUDY DESIGN

Hospital based retrospective study.

STUDY PERIOD

1st January 2018 to 31st December 2018.

PARTICIPANTS

Total of 7 male patients.

METHOD

Retrospective analysis of patients with JNA, operated at ORL-HNS hospital Yangon in 2018. Total 7 patients, ages ranged from 17 to 35 years with JNA were included in this prospective study, who have been underwent operation. Five of them had pre-operative embolization and five of them have been operated with endoscopic approach, lateral rhinotomy approach in one patient and sub-labial (Caldwell-lac) approach in one patient.

RESULT

One patient was a recurrent case of JNA. There were no recurrent of JNA during the study period. Post-operative histology reports revealed only JNA.

CONCLUSION

Surgery is the treatment of choice for JNA. An endoscopic approach is feasible for early-stage lesions (Fisch I and II) and conservative external approaches are still useful in advanced stages (Fisch III and IV). Pre-operative embolization, if possible is adjunctive in surgical treatment.

POSTER # P-140

BASE OF SKULL METASTATIC ADENOCARCINOMA FROM THE BREAST, THE LONGEST DORMANT AFTER 23 YEARS

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OBJECTIVE

We describe a case of a metastatic adenocarcinoma of the base of skull with concomitant paranasal sinuses involvement after 23 years of breast carcinoma. This report also emphasized on the presentation and the postulation of the delayed metastases.

METHODS

We reviewed a case note of a 67-year-old lady with history of left breast malignancy who underwent left mastectomy and axillary clearance and completed her radiotherapy in 1992 presented with 3 months history of total loss of vision on her left eye after 23 years. On nasoendoscopic examination showed lobulated, well encapsulated mass occupying the midline postero-superior part of nasal cavity. The histopathological examination of the mass revealed a metastatic adenocarcinoma of breast primary. She was then referred to oncology for palliative treatment. She had completed 10 cycles of radiotherapy (total of 30Gy) and 6 cycles of chemotherapy. She was subsequently started on Letrozole and calcium supplement.

RESULTS

After 5 years of follow-up, she was clinically stable and the surveillance computed tomography scan showed no significant changes in size and extension of tumour. Her clinical presentation remained the same as the initial presentation.

CONCLUSION

Metastasis of the base of skull with concomitant paranasal sinuses involvement, as seen in our case, is exclusively rare. The discernable feature of our case is the more than two decades asymptomatic interval from the primary diagnosis of breast cancer. Therefore, latent metastasis to the base of skull with concomitant infiltration to the paranasal sinuses should be considered although the primary cancer was diagnosed two decades back.

POSTER # P-141

EVALUATION OF RESPONSE TO TREATMENT IN NON-ALLERGIC RHINITIS PATIENTS USING NASAL PEAK INSPIRATORY FLOW METER AND SINONASAL OUTCOME TEST-22

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OBJECTIVE

Non-Allergic Rhinitis (NAR) is a common condition worldwide with wide ranges of subtypes. The condition may affect the patients' the nasal function and quality of life. Therefore, patients' improvements with the treatment given are important. The response towards treatment should be assessed subjectively and objectively. We conducted this study to evaluate the treatment response in NAR patient subjectively and objectively and to see the correlation between them.

METHODS

A Quasi-Experimental, One Group Pre-test Post-test Study was conducted in UKM Medical Center in 2 years duration. Nasal Peak Inspiratory Flow (NPIF) test and SNOT-22 questionnaires were used to assess the treatment response in NAR patients objectively and subjectively. The measurements were taken pre-treatment and 3 months post-treatment.

RESULTS

All of the 53 patients showed improvement in their symptoms and quality of life after 3 months of treatment. The main symptoms complained by the patients are nasal obstruction, sneezing and runny nose and need to blow nose. Forty-three percents were on medication that can induce rhinitis. There was a significant improvement in the SNOT-22 score and Nasal Peak Inspiratory Flow test value after the treatment. There was strong and significant correlation between the improvement of the SNOT-22 score for nasal symptoms and quality of life and the increment of NPIF value for nasal function.

CONCLUSION

Medical treatment mainly by intranasal steroid is effective in treating NAR patients. This has been proven by the improvement of the nasal function and quality of life of the patients.

POSTER # P-142

ONE WORLD BUT MILES APART: UNUSUAL PRESENTATION OF NASOPHARYNGEAL TUBERCULOSIS

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OBJECTIVES

The occurrence of nasopharyngeal tuberculosis (NPTB) is rare even in endemic areas. NPTB can be primary or secondary to a pulmonary or systemic TB. Although NPTB represents less than one percent of all tuberculosis cases, the increase in cases reported recently may indicate an increase in the incidence. We present a case series of primary nasopharyngeal tuberculosis.

MATERIALS AND METHODS

We described three cases of NPTB with different presentations, varied naso-endoscopic and radiological findings. One case presented with multiple neck swelling without nasal symptoms. Nasoscopy showed normal nasopharynx but tissue biopsy was taken in view of suspicious of malignancy. Another patient was a case of nasopharyngeal carcinoma who had completed radiotherapy, complained of persistent yellowish discharge and nasoscopy showed fullness over left nasopharynx. The third patient presented with rhinitis symptoms for two months with adenoids hypertrophy. Radiological imaging may reveal a normal finding versus an ill-defined enhancing soft tissue mass over the pharyngeal mucosa space where a nasopharyngeal biopsy becomes helpful to obtain a diagnosis. All three cases were negative for pulmonary tuberculosis and the diagnosis of nasopharyngeal tuberculosis was confirmed by histopathological examination of nasopharyngeal tissue.

RESULTS

The patients responded well to antituberculous chemotherapy, evidenced by resolving nasal symptoms.

CONCLUSION

The variety of presenting symptoms is a challenge to diagnose NPTB because it commonly mimics other pathologies. Granulomatous changes of nasopharynx post-radiotherapy also can be caused by tuberculosis. Hence, high index of suspicion are important for early diagnosis of NPTB and initiation of proper treatment.

POSTER # P-143

ENDOSCOPIC DACRYOCYSTORHINOSTOMY: A 10-YEAR EXPERIENCE

BACKGROUND

Nasolacrimal duct obstruction can be presenting with chronic epiphora and swelling of the lacrimal sac. Dacryocystorhinostomy (DCR) is a surgical procedure which involves the diversion of lacrimal flow into the nasal cavity by creating an opening at the level of lacrimal sac. This operation can be performed by external or endoscopic endonasal approach.

OBJECTIVE

To study the outcome of endoscopic dacryocystorhinostomy in Universiti Kebangsaan Malaysia Medical Centre over a 10 years period.

METHOD

A retrospective review of patients who underwent endoscopic dacryocystorhinostomy (EDCR) from 2007 to 2017 in Universiti Kebangsaan Malaysia Medical Center.

RESULT

A total of 20 patients were involved in the study. The demographic data, clinical presentations, indication of surgery, investigations and post-operative outcome were analysed.

CONCLUSION

Our experience with EDCR concludes it to be an easy, efficient treatment for nasolacrimal duct obstruction with minimal complications. The low recurrence rate in our patients suggests that endoscopic DCR has good outcome.

POSTER # P-144

CLINICAL SIGNIFICANCE OF STERNBERG CANAL: A COMPREHENSIVE LITERATURE REVIEW

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OBJECTIVE

Sternberg's canal is a sphenoid skull base defect that can lead to cerebrospinal fluid leakage and may lead to meningitis and meningoencephalocele. We reviewed the literature to see the significance of Sternberg's canal and the effectiveness of different surgical approaches in correcting the defect.

MATERIALS AND METHODS

A literature search was conducted with following keywords: Sternberg's canal; lateral craniopharyngeal canal; cerebrospinal fluid leak; sphenoid sinus; meningocele; encephalocele.

RESULTS

Sternberg's canal is rare. There are 15 original clinical research papers (level III). There are 55 patients (age 23 to 72 years old). Most of them are females.. All 39 patients with documented presenting complaint have CSF rhinorrhoea. 14 out of 15 articles have cephalocele. There is no laterality of affected sides to foramen rotundum. Most patients do not have previous neurosurgical intervention or pre-existing medical illness. A total of 3 open surgeries, 49 endoscopic trans-nasal surgery and 2 combined open with endoscopic surgery were performed. However, there are 6 cases which developed recurrence of CSF leak.

CONCLUSION

The result shows that Sternberg's canal is an adult onset disease; typically present with CSF rhinorrhoea. The defect may occur either on medial or lateral to foramen rotundum. Endonasal surgery favours over transcranial surgery in repairing the Sternberg's canal defect as it is less invasive and also able to reach the area due to the current advancement of surgical instruments. Sternberg's canal should be treated surgically due to its potential risks to develop intracranial complication.

POSTER # P-145

A UNIQUE RHINOLOGIC MANIFESTATION OF MULTIPLE MYELOMA

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OBJECTIVES

To describe unusual vascular lesions in the nasal mucosa of two patients with multiple myeloma (MM), presenting with recurrent epistaxis.

MATERIALS AND METHODS

An extensive literature review was done to look for previous reports describing epistaxis secondary to nasal mucosa abnormalities in patients diagnosed with MM. The medical records of two patients, with unusual mucosal vascular lesions, were also reviewed. Information regarding their presenting symptoms, medical history and nasoendoscopic examination were reviewed. Nasoendoscopic images showing the change in the mucosal vascular lesions, before and after treatment of MM, were obtained for comparison.

RESULTS

To date, there are no reports describing nasal vascular lesions of patients with MM. Both our patients presented with similar-looking vascular lesions in their nasal mucosa, causing recurrent bloodstained nasal secretions. Patient A went further to receive treatment with chemotherapy and stem cell transplant for her MM, with subsequent resolution of her nasal vascular lesions and epistaxis. Patient B is still currently followed-up.

CONCLUSION

While vascular lesions in MM have been described in other areas (eg. skin, retina), there are no case reports describing any nasal lesions. Whether these lesions developed as part of the natural disease progress of MM is unknown. Proposed mechanisms accounting for this phenomenon include increased angiogenesis, amyloid accumulation in unusual sites, and pathologic proteins interfering with plasma clotting factors causing precipitation of proteins on walls of small blood vessels. Further research can consider the significance of such nasal vascular lesions, both on the disease process, prognosis and ENT management of epistaxis.

POSTER # P-146

DISTRIBUTION OF EOSINOPHILS VERSUS NEUTROPHILS IN PATIENTS WITH BILATERAL NASAL POLYPS

OBJECTIVE

The aim of this study was to study the distribution of eosinophils versus neutrophils in patients with bilateral nasal polyps.

DESIGN

Hospital based cross-sectional study

SETTING

Otorhinolaryngology + Head and Neck Specialist Hospital, Yangon

PARTICIPANTS

The study population comprised 96 patients (62 male and 34 female). Age ranged from 6 to 70 years.

RESULTS

Eosinophil dominated nasal polyp was seen in 19 cases, Neutrophil dominated nasal polyp was seen in 16 cases and non-eosinophil non-neutrophil dominated nasal polyp was seen in 61 cases. In this study, 7 cases give history of previous endoscopic polypectomy. Among 19 cases of eosinophil dominated nasal polyps, 3 cases of nasal polyps associated with Bronchial Asthma. According to the histological result, 19 cases of eosinophil dominated nasal polyps, and among 67 cases, 16 cases of neutrophil dominated nasal polyps showed active chronic inflammatory nasal polyp.

CONCLUSION

This study suggests a strong relationship between presence of allergic symptoms and eosinophil dominated nasal polyps. (P-value- 0.000) And there is strong evidence of association between presence of infection and neutrophil dominated nasal polyps. (P-value- 0.000). There is strong relationship between different types of biopsy result and eosinophil dominated nasal polyp versus neutrophil dominated nasal polyp. In this study, eosinophil dominated and neutrophil dominated nasal polyp patients appear to be a trend towards the higher grades of polyps. Even though the frequency of Asthma in the setting of nasal polyp is between 30 and 70 %, only 18.6% of nasal polyp in eosinophil dominated patients are associated with Asthma. Recurrence of bilateral nasal polyps are strong relationship with eosinophil dominated nasal polyp.

POSTER # P-147

LEPROMATOUS RHINITIS AN UNUSUAL PRESENTATION OF HANSEN'S DISEASE

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INTRODUCTION

Leprosy (Hansen's disease) is a chronic granulomatous infection caused by the bacteria *Mycobacterium leprae*. Classically leprosy affects the skin and peripheral nerves. The paranasal sinuses can also be infected, and can serve as reservoirs for the reactivation of disease. We are highlighting a case of lepromatous leprosy with an unusual nasal presentation of ozaena and nasal blockage as the primary complaints.

CASE REPORT

A 31-year-old male patient, a private banker, presented to our ENT outpatient clinic with complaints of nasal obstruction, foul-smelling nasal discharge (ozaena) and intermittent epistaxis for the past 1 month associated with multiple cutaneous nodules over the bilateral ear pinnae. Biopsy of the nasal mucosa revealed chronic granulomatous inflammation with multinucleated giant cells surrounded by abundant bacilli consistent with histoid leprosy.

CONCLUSION

Leprosy remains a major public health hazard, as new cases are still being reported. The otolaryngologist should remain vigilant and have high index of suspicion for leprosy in patients with chronic nasal symptoms to prevent the potential morbidities that accompany this disease.

Keywords: Leprosy , lepromatous rhinitis , atrophic rhinitis , mycobacterium leprae , chronic rhinosinusitis

POSTER # P-149

MANAGEMENT OF EPISTAXIS ON NOVEL ORAL ANTICOAGULATION THERAPY

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OBJECTIVES

Epistaxis is a common problem with a reported lifetime prevalence of 60%. Individuals on anticoagulation therapy are at increased risk of bleeding. Novel oral anticoagulants (NOAC) such as direct thrombin inhibitors and direct factor Xa inhibitors offer some advantages over classic vitamin K-derived anticoagulation therapy. However, there is a lack of available reversal agents for NOAC. We aim to review the current literature on epistaxis in the context of NOAC use as well as reversal agents to recommend guidelines on management.

MATERIALS AND METHODS

A comprehensive search of published literature was conducted using the following Medline, Pre-Medline, PubMed, and Embase to identify all relevant articles up to April 2019.

RESULTS

Patients on oral anticoagulation are over-represented in individuals with epistaxis. Those on NOAC were more likely to relapse than patients on classic oral anticoagulants or non-anticoagulated. The evidence regarding the severity of epistaxis on NOAC is conflicting. Idarucizumab is an effective antidote for bleeding associated with dabigatran use. There is a lack of high level of evidence for nonspecific reversal agents. Recommendations for management of epistaxis on NOAC, including first aid principles and use of reversal agents, are outlined.

CONCLUSION

Clinicians need to be aware of the potential severity of epistaxis and the increased likelihood of recurrence. If reversal of anticoagulation is required, involvement of the haematologist and cardiologist should be sought early. Further high-quality studies are required to determine the efficacy and safety of andexanet alfa and ciraparantag as well as non-specific reversal agents.

POSTER # P-150

THE ENDOSCOPIC SURGICAL MANAGEMENT OF FRONTAL SINUS OSTEOMAS

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OBJECTIVES

Osteomas are the most common benign tumors of the paranasal sinuses (60%). Endonasal endoscopic approach is chosen to remove osteomas of the frontal sinus and recess because its advantage of no external scars. However, this approach is still limited by the conditions and the need for experienced surgeons.

MATERIALS AND METHODS

This was a non-randomized trial study performed at ENT Hospital of Ho Chi Minh City. All adult patients with osteomas of the frontal sinus and recess were indicated for surgery.

RESULTS

In 14 months (from January 2016 to August 2017), 34 adult patients were chosen in this study. 67.65% osteomas was removed via endonasal endoscopic approach, in 32.35% of cases, a combine endoscopic and external approach (Jacques incision). 88.24% osteomas was completely removed (52.95% by elevators and 35.29% by drills), 11.76% osteomas was not completely removed. In 35.29% of cases, the operation was navigation-assisted. 17.65% of cases had scarring and cicatrization of the frontal recess in first 4 weeks post-op, 11.76% of them was repaired successfully in clinic, 5.89% of them necessitated surgical revision. Intraoperatively, complication of injury to the lamina papyracea was observed in 1 case (2.94%) and bleeding from the anterior ethmoidal artery was observed in 1 case (2.94%), both are successfully controlled without severe consequences.

CONCLUSION

The endoscopic approach advantageous over external approaches in osteomas of the frontal sinus and recess sinus that avoids external scars, loss of forehead sensation and makes the length of hospitalization shorter. It should be noted that not all the osteomas should be removed completely by endoscopic approach and the surgeon should stop at the right time. External approach is still helpful in managing frontal sinus diseases.

POSTER # P-153

CHOANAL ATRESIA IN KARIADI GENERAL HOSPITAL SEMARANG

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BACKGROUND

Choanal atresia is a rare congenital disorder, the incidence of 1 case in 5000 - 8000 births. Unilateral choanal atresia causes unilateral chronic nasal drainage, while bilateral choanal atresia causes an emergency at the time of inadequate birth of the nasal airway.

OBJECTIVE

This case was proposed to reports the insidens of various types of choanal atresia in Kariadi Hospital Semarang

CASE

Three cases of different types of choanal atresia were reported from January 2017 – December 2018, which had been performed operatively. The first case was an 18 days baby with bilateral type of membranous choanal atresia, transnasal choanoplasty was performed by mucosal incision on the right and left choana base. Application of naso gastric tube is done as a fixator in the choana hole. The second case was an 18 years old child with unilateral type bony and membranous choanal atresia, performed transnasal choanoplasty using drill and septal flap. The third case was a 7 years old child with bilateral bony and membranous type choanal atresia, performed transnasal coanoplasty using drill and posterior septectomy.

CONCLUSION

Choanal atresia can be late diagnosed especially if it occurs unilaterally. Several choanal atresia operating techniques according to the type of membrane or bone, for the membrane type using incision while the bone type needs to be made hole with a drill.

POSTER # P-154

INVASIVE FUNGAL RHINOSINUSITIS IN DR. CIPTO MANGUNKUSUMO GENERAL HOSPITAL: A DESCRIPTIVE STUDY

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OBJECTIVES

Invasive fungal Rhinosinusitis (IFRS) is a life threatening condition that typically affects immunocompromised patients.

MATERIALS AND METHODS

This is a retrospective descriptive study to find characteristics of patients diagnosed by IFRS treated in Dr. Cipto Mangunkusumo during 2014 – 2019 (6 years)

RESULTS

There were 12 cases of IFRS with 8 males predominantly to 4 females, with minimum age was 4 months and maximum age was 59 years old. Four of them died because of the immunocompromised state they had. The causes of death were sepsis, hemorrhagic stroke, NK T-Cell Lymphoma, and type 1 and 2 diabetes mellitus. The culture results were obtained in 11 patients consisting of *Aspergillus* spp. only and *Mucorales* only in 2 cases each, *Rhizopus*, and *Fusarium* spp., *Candida albicans* and *Fusarium* spp., *Candida tropicalis* and *Mucorales*, *Aspergillus flavus* and *Rhizopus*, *Aspergillus flavus* and *Fusarium*, and *Aspergillus* spp. and *Mucorales*, all of them were in one case each. Immunocompromised status were found in 11 patients and immunocompetent status in 1 patient. IFRS treatments were carried out by performing FESS surgery for debridement and various antifungal medication, such as Amphotericin B, Fluconazole, Voriconazole, and Itraconazole. There were 3 patients underwent surgery first then continued with antifungal medication. Whereas in 9 patients, antifungal treatment were given first. Four patients died after antifungal treatment without debridement.

CONCLUSION

The immunocompromised state of the host is considered to be an important factor in the progression of the disease.

POSTER # P-155

APPROACHES IN THE EARLY DETECTION AND MANAGEMENT OF MAXILLARY SINUSITIS FROM ODONTOGENIC CAUSES: A 30 YEAR SYSTEMATIC REVIEW

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OBJECTIVES

Odontogenic causes of maxillary sinusitis often go undiagnosed and overlooked, leading to persistent infection and symptoms in patients. Early studies report an incidence of up to 10-12%, while newer studies have reported an incidence as high as 40% of unilateral maxillary sinusitis. This study aims to consolidate the emerging data regarding the pathophysiology, clinical symptoms, modern diagnostics and treatment modalities of odontogenic maxillary sinusitis (MS).

MATERIALS AND METHODS

A search of all existing English literature including case reports was performed on Pubmed, Medline and Scopus databases using the following keywords: “odontogenic sinusitis” and “maxillary sinusitis of dental origin”. Non-English literature was excluded.

RESULTS

Complications of teeth extractions are common causes of MS. Symptoms include: nasal congestion and rhinorrhea. It can be difficult to distinguish between odontogenic and non-odontogenic causes. Good clinical acumen and the use of CBCT/CT imaging are important in diagnosing MS from odontogenic causes. Availability of FESS in the armamentarium often proved invaluable. An intra-oral approach (sinus lavage, buccal fat pad graft) with medical therapy (antibiotics, nasal decongestants) may also be offered as a first line of treatment.

CONCLUSION

The management of MS involves treatment of both the sinusitis and the odontogenic cause. Thus, a multidisciplinary approach involving otolaryngologists, oral maxillofacial surgeons and radiologists is critical in ensuring optimal patient outcome. We propose a new algorithm of care for MS patients in this review.

POSTER # P-156

PREDICTIVE FACTORS FOR INVASIVE FUNGAL RHINOSINUSITIS IN DIABETIC PATIENTS: DATA REANALYSIS AND SYSTEMATIC REVIEW

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OBJECTIVE

To identify likely prognostic factors which predict outcomes of diabetic patient with invasive fungal rhino sinusitis ,this systematic review was done .

MATERIALS AND METHODS

A review was performed using Medline, EMBASE, and Cochrane database. The search was only on the articles published in English language. Case series were excluded to prevent double input of data. Step wise univariate analysis were done for each variables. The significant variables ($P < 0.10$) were incorporated (included) to multivariate model. Potential prognostic factors were identified using logistic regression. Kaplan Meier curve was shown for survival.

RESULTS

Total 1103 journals are found but after excluding ,total 113 patients records were included. Overall mortality was 28.32 % and male female ratio was 1.67:1. A wide geographical distribution was seen , among them India is largest area of contribution. Mucormycosis is account 67.26 percentage. In step wise univariate analysis on radiological imaging, cavernous sinus , internal carotid and intracranial involvement showed significant P value. Present of black materials and black esher was found to be 44 percentage of the patients , but not satisficatlly significant. For Glucose level ,24 mmol/l is one of the point that further clinician need to pay attention on plasma glucose level. There was limited resources for HbA1c.

CONCLUSION

Survival outcomes of invasive fungal sinusitis in diabetes patients, plasma glucose level, total WBC count should be considered as independent predictors for high mortality.

POSTER # P-157

VIDIAN NEURECTOMY – TECHNIQUE FEASIBILITY AND OUTCOMES

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OBJECTIVES

Vidian Neurectomy has been advocated as a surgical option for rhinitis refractory to medical treatment. The technique feasibility and surgical outcomes is described.

MATERIALS AND METHODS

Five consecutive patients (3 Females and 2 Males; mean age 42.5y; range 31-46y) who presented to the ENT clinic with non-allergic rhinitis with persistent and disabling symptoms refractory to maximal medical therapy is subjected to bilateral Vidian Neurectomy. A total of 10 procedures were performed using a standardized surgical technique. Pre and post-operatively SNOT 20 scores, subjective complaints and Schirmer's Test was done for symptom evaluation.

RESULTS

A total of 10 procedures were done. All patients reported significant improvement in rhinorrhea, sleep and psychological functions after 3 months of follow-up. Palatal numbness was the most subjective complaint by the patients. However, it resolved after 3 months of follow-up. None of the patient's complaint of dry eyes. Schirmer's test performed at 3 months showed mild to moderate dry eyes in most patients. SNOT 20 scores showed significant reduction after 3 months of follow up.

CONCLUSION

Endoscopic Vidian Neurectomy does have a significant and important role in the surgical management of refractory rhinitis. Endoscopic visualization of the vidian nerve and better comprehension of the anatomy has enabled us to precisely locate and transect the Vidian nerve. All of our patients had showed vast improvement in their rhinologic, sleep and psychological symptoms.

POSTER # P-158

MYOEPIHELIAL CARCINOMA OF THE NASOPHARYNX

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INTRODUCTION

Myoepithelial carcinoma (MECA) is a locally aggressive salivary gland tumour. To far, less than 10 cases of nasopharyngeal MECA has been reported with majority reported to have nasal obstruction. Majority of MECA are located in the parotid gland but it has previously been reported to occur in breast, lung and orbit. The management of MECA of nasopharynx remain a challenge due to its rarity. Treatment involves chemoradiotherapy and surgical excision but with high morbidity due to its close relation to intracranial.

CASE REPORT

A 70 year-old-Indian lady presented with blood stained saliva for past 1 month. She also complaint of left ear blockage of same duration with reduced hearing. She has no epistaxis or nasal blockage. She has no tuberculous symptom.

On examination, she was not cachectic. There was no neck node. Nasoendoscopy revealed a lobulated mass arising from left fossa of Rossenmuller, obliterating the Eustachian tube. Biopsy revealed myoepithelial malignant tumour.

CT and MRI of Neck showed 2.0x1.1x2.6cm homogenous enhancing nasopharyngeal mass filling the left fossa of Rossenmuller and obstructing the Eustachian tube. Laterally it extended to parapharyngeal space. Posterolaterally, it abutted the anterior wall of the left common carotid artery. Superiorly, the tumour extended to the foramen lacerum. There were also vertebral metastases.

Patient underwent left extended nasopharyngectomy and planning for radiotherapy to her spine.

CONCLUSION

MECA is very rare and its management is challenging due to its rarity, its close proximity with skull base and being locally aggressive. It should be identified early to achieve a complete tumour excision.

POSTER # P-159

THE EFFECTS OF THE MIDDLE TURBINATE ORIENTATION AND RESECTION ON SPHENOID SINUS IRRIGATE PENETRATION FOLLOWING ENDOSCOPIC SINUS SURGERY.

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OBJECTIVE

To determine how surgery on the middle turbinate (MT) may effect penetration of irrigation into the sphenoid sinus.

MATERIALS AND METHODS

Two life-size 3-D printed sino-nasal models with video visualization ports drilled into the roof of the sphenoid sinus were utilized in this study. Stepwise endoscopic sinus surgery was simulated on each side of the models. Following each surgical step, the nasal cavities were irrigated with blue food colouring mixed with water from a NeilMed® Sinus Rinse™ bottle. All irrigations were performed in a 45° head-down position to mimic patients “bending over the sink”. Video recordings of these irrigation were saved and single-blinded independent observers scored them according to a pre-defined scale.

RESULTS

When the middle turbinate was in the anatomical position, no changes in sphenoid sinus irrigate penetration was observed before sphenoidotomy (natural ostium), 5mm sphenoidotomy and wide sphenoidotomy. However, irrigate penetration improved significantly when the MT was medialized onto the septum. A similar trend was observed when the MT was resected.

CONCLUSIONS

Middle turbinate medialisation, whether by suture conchopexy or controlled synechia, is recommended during endoscopic sinus surgery especially when sphenoidotomy is undertaken. Optimal sinus dissection improves sphenoid irrigate penetration but wide antrostomy has a negative impact on it.

POSTER # P-160

BILATERAL CHRONIC MAXILLARY ATELECTASIS WITH A UNILATERAL ACCESSORY OSTIUM

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OBJECTIVES

Chronic maxillary atelectasis (CMA) is an underdiagnosed condition that can occur bilaterally and may lead to significant complications. Its aetiology has not been established. Accessory maxillary ostium (AMO) is a defect in the fontanelle and is associated with maxillary sinus pathology. We aim to investigate the theories regarding the aetiology of CMA using a case presentation with a literature review.

MATERIALS AND METHODS

We present a case of a 47-year-old man presented with sinonasal symptoms. Nasendoscopy demonstrated bilateral lateralised uncinate processes. Radiological findings were consistent with a diagnosis of bilateral stage II CMA, with the left side less atelectatic than the right and only partially opacified. The patient proceeded with bilateral uncinectomies and maxillary antrostomy. Intra-operatively, an AMO was visualised on the left. We also performed a literature review regarding the aetiology of CMA.

RESULTS

The main theory regarding the aetiology of CMA is sustained obstruction of the ostiomeatal complex resulting in negative intra-sinus pressures and subsequent atelectatic remodelling of the antrum. Our patient had an AMO on the left side, which was also the side of lesser severity in symptoms and radiological findings. We propose that the maxillary sinus pathology led to the development of the AMO, which then halted progression of the CMA.

CONCLUSION

This case suggests that AMO can develop or enlarge and supports the notion that CMA is caused by negative intra-sinus pressures. Further research is required to establish the precise aetiology of CMA.

POSTER # P-171

QUALITY OF LIFE CHANGES FOLLOWING THREE-DIMENSIONAL PRINTING OF PROSTHESIS FOR LARGE NASAL SEPTAL PERFORATIONS – OUR EXPERIENCE OF 13 PATIENTS

Authors:

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OBJECTIVE

To assess the clinical outcomes following large nasal septal perforation (NSP) closure using 3-D printing technology for the fabrication of custom-made prosthesis.

MATERIALS AND METHODS

Design

Prospective cohort study

Setting

Rhinology clinics at a tertiary referral hospital in Liverpool, United Kingdom.

Participants

Patients diagnosed with nasal septal perforation.

Main outcome measures

Total SNOT-22, domain (rhinologic, ear/face symptoms, sleep and psychological function) scores and pre- and post-insertion nasal symptoms specific to nasal septal perforation (crusting, epistaxis, whistling) were evaluated.

RESULTS

The mean total SNOT-22 score improved significantly after insertion of the prosthesis. Although all the domains had reduction in scores, the highest change was in perforation specific symptom reduction.

CONCLUSION

Accurate sizing and successful closure provided by 3-D printing technology for obturation of large nasal septal perforations have resulted in significant improvement in quality of life scores as well as nasal symptoms specific to perforations. Long-term retention rates of the prosthesis and temporal changes in quality of life indices will require further evaluation.

POSTER # P-172

ADJUNCTIVE TECHNIQUES TO IMPROVE ACCESS OF THE ENDOSCOPIC PRELACRIMAL APPROACH TO THE MAXILLARY SINUS, ORBITAL FLOOR AND INFRATEMPORAL FOSSA

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OBJECTIVES

To determine adjunctive techniques could improve surgical access of the endoscopic prelacrimal approach to the maxillary sinus and its anatomical boundaries thus enhancing the utility of the technique.

MATERIALS AND METHODS

This study was approved by the Central University Research Ethics Committee of the University of Liverpool (reference 4473). Twenty paranasal sinuses from 10 cadaveric heads were dissected using pre-lacrimal and transseptal approach and canine fossa puncture. Anatomical areas of interest - (palatine bone (PB), medial and lateral to infraorbital nerve (M-ION, L-ION), zygomatic recess (ZR), alveolar recess (AR) and ramus of mandible (RM) were determined. Surgical accessibility was defined as the successful placement of the distal tip of a 20-cm endonasal instrument on the specific anatomy of interest. The Blakesley Rhinoforce® II straight nasal forceps and 45° upturned nasal forceps were used. The forceps were held in its open position and centred in the middle of the endoscopic visual field.

RESULTS

Pre-lacrimal approach provides good access to PB and M-ION. Use of 45° instrument and transseptal window significantly improved access to ZR and AR. Similarly, access to L-ION improved significantly when 45° instrument was used through the pre lacrimal approach. Pre lacrimal approach provided access to RM in 70% of the dissections and improved with angled instruments and/or a transseptal window but with no statistical significance. Canine fossa puncture did not show any significant improvement in accessibility of these anatomical areas.

CONCLUSION

Pre-lacrimal approach is useful for maxillary sinus and infratemporal fossa surgeries. Use of angled instruments and transseptal window further increases its accessibility.

POSTER # P-173

CORRELATION OF SINONASAL SYMPTOMS WITH THE SIZE AND POSITION OF NASAL SEPTAL PERFORATION – AN OBSERVATIONAL STUDY

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OBJECTIVES

To assess the correlation of sinonasal symptoms and quality of life with the size and position of nasal septal perforation (NSP).

MATERIALS AND METHODS

This is a prospective observational study involving adult patients who presented with NSP. Sino-Nasal Outcome Test-22 (SNOT-22) and its clinico-psychometric domains were analysed including additional NSP-specific symptoms (nasal crusting, epistaxis and whistling noise during nasal breathing). Size of perforation was measured radiologically by calculating the area in cm² and antero-posterior (AP) length. Position of the perforation was determined clinically by the distance from columella to the anterior edge of the perforation.

RESULTS

Forty patients were included in this study (22 males) with the most common aetiology of iatrogenic cause. No statistical correlation was observed between the total SNOT-22 score with either position or size of NSP. As for NSP-specific symptoms, there was a statistically significant negative correlation with the size of perforation (AP length) ($r = -0.34$, $p = 0.03$) and position of the perforation ($r = -0.49$, $p = 0.0016$), suggesting that these symptoms improved with posterior and larger perforations.

CONCLUSION

Reported SNOT-22 scores were comparable to patients with recalcitrant chronic rhinosinusitis although the scores did not correlate with size and position of NSP. Sinonasal symptoms typically observed in NSP improved with more posterior and larger perforations. This study provides insight into quality of life impact of NSP and affirms clinical observation that anterior NSP are more symptomatic.

POSTER # P-180

PRELIMINARY RESULTS OF INTRANASAL PROBIOTIC USE AS PREVENTATIVE &/OR ADJUVANT TREATMENT AGAINST RESPIRATORY TRACT INFECTIONS

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OBJECTIVE

To investigate *in vitro* Adherence of Streptococcus pneumoniae (Spn) to Detroit Nasal epithelial cells (NEC) in the presence and absence of probiotic consortia.

MATERIALS AND METHODS

The test consists of 2 arms – A control arm with NEC incubated with Spn for 3 hours & a test arm with NEC incubated with Spn & probiotic consortia Lab4 & Lab 4b (5x10⁶CFU/ml) separately. Adherence assays were performed & cell colony counts were performed to assess the number of cells with Spn adherence. Paired t test was applied to the mean values & statistical significance was obtained.

2 probiotic consortia developed by Cultech Ltd used

Lab4 – *Lactobacillus-acidophilus*, *Bifidobacterium-bifidum* and *Bifidobacterium-animalis*(subsp.-lactis)

Lab4b – *Bifidobacterium-bifidum*; *Bifidobacterium-animalis*(subsp.-lactis), *Lactobacillus-salivarius* and *Lactobacillus-paracasei*

RESULTS

NEC tolerated viable/heat killed Lab4 & Lab4b up to 10⁷CFU/mL irrespective of incubation time. Probiotic adherence to NEC remained relatively stable over time (5.62% in1hr, 4.51% over 24hrs). 44.844% of cells in the control arm were free of cells with SPn adherence whereas 55.319% of cells in the test arm with Lab4 were free of Spn adherence & 53.853 cells were free of adherence with Lab4b.

CONCLUSION

Preliminary data showed encouraging results of Lab4 & Lab4b regarding cell-viability, inflammatory-mediator production & adherence. There is a reduction in the adherence of Streptococcus pneumoniae to the NEC in the presence of probiotics. Lab4 has shown better results than Lab4b to reduce Spn adherence to epithelial cells.

POSTER # P-181

PARANASAL SINUSES MUCOCELE : A SERIAL CASE

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INTRODUCTION

Mucocele in paranasal sinuses is an accumulation of mucoid secretion and can be destructed. The major etiology of mucocele is the obstruction of paranasal sinus drainage, most common site are the frontal and ethmoid sinuses, mucocel in maxillary sinus is rare. Surgery is the first modality treatment for paranasal sinus mucocele.

CASE

We present two cases of the mucocele. First case, 46 years old male, with chief complain mass on the cheek and grew massively in last two years, nasal obstruction, slight facial pain on the right cheek. The second case, 38 years old women, came with facial pain in the left forehead since 2 years ago and bulge at right eyes, there was dyptopia but there was no vision impairment.

DISCUSSION

The first case, endoscopic medial maxillectomy approached with marsupialization technique has been done to this patient, the thinning bone on anterior wall maxillaris sinus were fregmantend and fixated with suture to prevent the skin and subcutaneous tissue collapse into the maxillary cavity. The second case, we performed functional endoscopic sinus surgery approached with draf IIb, to maintain the patency of frontal sinus drainage.

CONCLUSION

Functional sinus surgery endoscopic is always be the main choice therapy in paranasal sinus mucocele and marsupialization technique has been done to maintain the drainage of sinuses.

POSTER # P-182

SERIAL CASE: PENETRATED FOREIGN BODY INJURY ON THE FACE (WOODEN AND IRON ARROW)

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INTRODUCTION

Foreign body penetrated injury into paranasal sinuses can be very destructed and life threatening. Management of penetrated foreign body using endoscope to avoid further trauma to surrounding tissue and to have a good visualization. The outcome after penetrated trauma sometimes causes morbidity.

CASES

The first case: A 46-years-old male was referred to hospital due to penetration of foreign body (wooden). The second case: A 34-years-old male came to hospital with chief complain of iron arrow penetrated. Both of this case penetrated left site of the face.

DISCUSSION

From The first case, the foreign body (wooden) penetrated on the left orbital cavity, nasal cavity until to nasopharynx. The second case shows foreign body (iron arrow) penetrated left orbital cavity, nasal septum to nasopharynx, fracture of the left lamina papyracea extend to the left wall of ethmoid sinus. Both of these cases were performed foreign body extraction, evacuation, and enucleation using endoscopic procedure with ophthalmologist team.

CONCLUSION

Foreign body traumatic penetration of the face has always been affected several vital organ. An immediate management should be performed to avoid infection morbidity and mortality.

POSTER # P-183

RAPIDLY PROGRESSING SUBPERIOSTEAL ORBITAL ABSCESS AND DEEP NECK ABSCESS SIMULTANEOUSLY: A RARE COMPLICATION OF DENTAL INFECTION IN HEALTHY YOUNG PATIENT.

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BACKGROUND:

Subperiosteal orbital abscess secondary to rhinosinusitis recently reported the emergence of gram negative extended spectrum beta lactamase (ESBL) bacteria which make it more complicated due to antibiotics resistant. Deep neck abscess caused by dental infection is common case in spite of widespread use of antibiotics. It can damage the adjacent vital structure thus still remain a life threatening and challenging disease.

CASE REPORT:

A 38-year-old male, previously healthy, admitted with progressive left neck swelling and trismus since 10 days prior. History of recurrent left lower toothache lasted for a month, subsequently placed on systemic antibiotics and analgesics. He also reported a year history of nasal blockage and facial pain, symptoms worsened in last 7 days with left nasal mucopurulent foul smelling rhinorrhea, fever and swollen on left eye and cheek. Management requires deep neck abscess [surgical drainage](#), [odontectomy](#) and functional endoscopic sinus surgery (FESS). Empiric antibiotic using ampicillin sulbactam, intraoperative cultures of purulent drainage from sinus reveal *Klebsiella pneumoniae* with positive ESBL and sensitive to meropenem while from deep neck abscess found *Citrobacter koseri* and sensitive to ceftriaxone.

DISCUSSION:

Subperiosteal orbital abscess and deep neck abscess due to bacterial opportunistic infection is related to the virulence of the causative agents and immunologic resistance of the host. CT scan is indicated to evaluate the extension of the infection while the management depends on the cause and severity. Impairment of vision, periorbital erythema, proptosis, and radiological findings indicated an immediate surgical approach to avoid devastating morbidity. Similar with subperiosteal abscess, deep neck abscess should be treated with intravenous antibiotics in addition to surgical drainage of abscesses

CONCLUSION:

This case highlighted the unexpected complication of dental infection which is very rare because it was found simultaneously and the need of a prompt medical and surgical approach to achieve a good prognosis

POSTER # P-197

PRIMARY CRANIOPHARYNGIOMA IN THE ETHMOID SINUS: AN UNUSUAL PRESENTATION

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OBJECTIVES

Craniopharyngiomas are benign but aggressive epithelial tumours that arise from the Rathke's pouch. They are typically found within the sellar and suprasellar region.

Rarely it can be found in the infrasellar location, with involvement of the sphenoid sinus and extension to the ethmoid. However, primary isolated ethmoid craniopharyngioma is extremely rare and there have only been two other case reports of this in the literature. We describe the third case of this rare condition.

MATERIALS AND METHODS

We present a case of a 31-year-old woman who was referred to an ENT specialist for nasal obstruction, mouth breathing, and bruxism. On nasendoscopy, there was a right septal deviation and bilateral turbinate hypertrophy with a left nasal cavity lesion. A CT of the paranasal sinuses confirmed a deviated nasal septum, turbinate hypertrophy, and a left nasal cavity lesion. Surgical intervention included a septoplasty, bilateral inferior turbinoplasty, and left endoscopic sinus surgery with removal of the mass in the left ostiomeatal complex. Histopathology confirmed a left ethmoidal adamantinomatous craniopharyngioma. She progressed well post-operatively and was asymptomatic at 5 weeks follow-up.

RESULTS

Craniopharyngiomas are believed to originate from the squamous remnants of an incompletely involuted craniopharyngeal duct, which also develops from Rathke's pouch. Two previous cases of primary ethmoidal craniopharyngiomas have been reported – both of whom presented with epistaxis.

CONCLUSION

We report the third case of a primary extracranial ethmoidal craniopharyngioma. Clinicians should be aware of the condition and consider it as a differential when assessing sinonasal masses.

Sleep & Related Breathing Disorders

POSTER # P-086

RELATIONSHIP OF COLLAPSE OF THE UPPER AIRWAY WITH SEVERITY OF SLEEP APNOEA AND SLEEPINESS

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OBJECTIVE

Obstructive sleep apnoea is characterized by repeated episodes of collapse of the upper airway. The symptoms experienced by the patient especially the degree of sleepiness is often variable. Many patients with high levels of sleepiness do not have corresponding levels of Apnoea Hypopnea Index (AHI) on polysomnography and vice versa. A review of literature shows very limited data on this with conflicting results.

MATERIALS AND METHODS

This was a retrospective study including all patients with symptoms of obstructive sleep apnoea. All patients underwent a complete history and Oto-laryngological examination, nasopharyngolaryngoscopy with Muller's manoeuvre, administration of the Epworth sleepiness scale (ESS) questionnaire and a full night polysomnography. Correlation between the sites and degree of collapse at various sites, body mass index(BMI), neck circumference (NC) with both the AHI and ESS were assessed. Correlation was considered significant at $p < 0.05$.

RESULTS

A total of 145 patients were included in the study. 98% had a collapse at Level I. 80% of the patients had multisegmental collapse with 30% having collapse at all three levels. There was significant correlation ($p < 0.001$) between ESS and AHI. Collapse at Level I had the greatest impact on AHI scores. Statistically significant variables with AHI were gender, NC; BMI and total score. No variables were significant with ESS.

CONCLUSION

Cumulative scores of the severity of collapse irrespective of the number of sites involved had a greater correlation with the AHI scores. This was seen more in the male gender and those with increased NC and raised BMI.

POSTER # P-087

COMPARISON OF FATIGUE, STRESS, AND RESILIENCE IN PATIENTS WITH OR WITHOUT OBSTRUCTIVE SLEEP APNEA.

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OBJECTIVE

In this study, we compared the level of fatigue, stress, and resilience between patients with or without obstructive sleep apnea (OSA). Furthermore, we identified whether surgery could decrease the level of stress and fatigue in OSA patients.

STUDY DESIGN

A prospective clinical trial.

METHODS

We enrolled 100 patients who underwent surgery for OSA treatment (OSA group) and 50 patients who had no snoring history (control group). Initial status of fatigue, stress, and resilience were evaluated in both group by using Chalder Fatigue Scale (CFS), Daily Hassles Scale-revised (DHS-R), and Connor-Davidson Resilience Scale (CD-RISC) questionnaire. Scores were compared between OSA and control group. In addition, we compared status of fatigue, stress, and resilience in patients with OSA, before and after three months of surgery.

RESULTS

The average age and BMI were not statistically significant between OSA and control group. However, there were significant differences in CFS (OSA vs Control, 31.50 ± 7.66 vs 24.38 ± 4.61 ; $p < 0.001$), DHS-R (77.96 ± 21.11 vs 67.50 ± 16.09 ; $p < 0.001$) and CD-RISC (64.91 ± 16.05 vs 71.98 ± 12.35 ; $p = 0.010$) score between OSA group and control group. Furthermore, CFS (preop vs postop, 31.50 ± 7.66 vs 25.32 ± 7.34 ; $p < 0.001$), DHS-R (77.96 ± 21.11 vs 71.67 ± 21.25 ; $p = 0.003$) and CD-RISC (64.91 ± 16.05 vs 68.14 ± 19.41 ; $p = 0.015$) were improved after surgery compared to preoperative scores in OSA patients regardless of BMI or severity of OSA.

CONCLUSION

Patients with OSA complain of more severe fatigue/stress and poor resilience compared to control subjects. Furthermore, surgery might play a role in reducing the degree of stress and fatigue in OSA patients.

POSTER # P-088

THAMMASAT – SIRIRAJ THAI PEDIATRIC SLEEP QUESTIONNAIRE: TRANSLATION AND CROSS CULTURAL ADAPTATION

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OBJECTIVES

Pediatric Sleep Questionnaire (PSQ) has been deemed a useful tool in the assessment of sleep disordered breathing. It is an inexpensive, less time-consuming and more accessible analysis compared to gold standard polysomnography. The researchers aimed to translate the PSQ into the Thai language and validate it for routine use in Thailand.

MATERIALS AND METHODS

The PSQ was translated into Thai using stages recommended by international guidelines (Sagheri et al., 2010). Parents of children aged <18 years ($n=70$) completed the Thai PSQ online twice within one month, with an interval of at least two weeks.

RESULTS

A total of 70 participants were enrolled, of which 53 were analyzed due to missing data (> 25%). Internal consistency analysis revealed an overall Cronbach α of 0.757, validating the questionnaire consistency. Test-retest reliability was evaluated using Kappa k , in which 19 out of 22 items yielded a significant value, and paired t-test, which showed a positive correlation of 0.697 and no significant difference between the two sets of responses.

CONCLUSION

The current version of the Thammasat – Siriraj Thai PSQ has shown reasonable consistency and validity results. The researchers aim to use the collected data to modify the questionnaire and collect more data to further examine the usability of the questionnaire in Thailand. The successful validation of the Thammasat – Siriraj Thai PSQ will allow Thai physicians to have an inexpensive and fast method to screen children with sleep apnea.

POSTER # P-089

MAJORITY OF PRIMARY CARE PHYSICIANS DO NOT ROUTINELY ENQUIRE ABOUT SLEEP & RELATED BREATHING DISORDERS.

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OBJECTIVES

Sleep is important for health, and sleep & related breathing disorders are prevalent, albeit often under-recognized and diagnosed. This could be related to healthcare providers not actively eliciting a sleep history. We aim to investigate the prevalence of this and explore its reasons among primary care physicians in Singapore.

MATERIALS AND METHODS

This is a cross-sectional self-administered survey conducted among primary care physicians in Singapore. We recruited 144 physicians working in both private and public sectors from August 2017 to June 2018.

RESULTS

Mean age was 49 (SD \pm 15) years old with male preponderance (59%). Majority (79%) worked full-time. Among this cohort, only 8% routinely enquired about sleep & related breathing sleep disorders during consultation; one-thirds rarely or never. This is in contrast to other lifestyle habits which were routinely elicited (86%, smoking; 68%, alcohol ingestion; 70%, dietary intake; 74%, physical activity). The main reasons for not enquiring about sleep were lack of initiation by patient (58%), lack of time (55%) and perceived lack of awareness/knowledge (37%). Majority (79%) rated sleep as important, 81% rated their awareness/knowledge in sleep and related breathing disorders as average or lower and 80% felt a need to raise their competency in this area.

CONCLUSION

Although sleep is rated as important, majority of primary care physicians do not routinely enquire about sleep & related breathing disorders during their consultation, Part of the reason is due to perceived lack of awareness/ knowledge. More educational effort need to be put in place to raise sleep awareness/knowledge in primary care.