Scientific Competition
Oral Presentation

Mahkota II Friday, 9/3/2018			
Time	Abstract No	Presenter Name	Abstract Title
2.30-2.45 pm	Oral 01	Dr Farah Hanan Abd Wahid	'Free style' secondary mandibular reconstruction: tips and tricks
2.45-3.00 pm	Oral 02	Dr Nik Nurhannan Mohd Badarudin	Management of Mandible Fracture in a Young Growing Child: A Case Report
3.00-3.15 pm	Oral 03	Dr Nik Salwani Nik Burhanuddin	Recurrent Ameloblastoma Extending into Infratemporal Fossa.
3.15-3.30 pm	Oral 20	Dr Mohd Khairul Anwar Mohd Tahir	Who am I? Unexpected post-operative psychosis
3.30-3.45 pm	Oral 05	Dr Devi Aulia Aidil	Cathedral Tryptich Design for Near Total Glossectomy Defect
3.45-4.00 pm	Oral 06	Dr Siti Nur Nabihah Zainul Abidin	Cranial Vault Expansion for Treatment of Increased Intracranial Pressure and Papilledema in Pfeiffer Syndrome
4.00-4.15 pm	Oral 07	Dr Tan Chuey Chuan	Posterior cranial vault expansion using distraction osteogenesis – our experience
4.15-4.30 pm	Oral 08	Dr Batmaraj Rawisandran	Salvage of a Radial Forearm Free Flap – What have we learned?
4.30-4.45 pm	Oral 09	Dr Sathana Priya Regupathy	Submental Island Flap and Its Potential for Oral Cavity Reconstruction
4.45-5.00 pm	Oral 10	Dr Fadhli Reza Zainal	Tensor Fascia Lata Sling Technique for Total Lower Lip Reconstruction
		Mahkota III Friday, 9/3/2018	
2.30-2.45 pm	Oral 11	Dr Syahir Hassan	In House 3D Virtual Planning and Template-guided Surgery in Ameloblastic Carcinoma: The Next Level of Mandibular Reconstruction
2.45-3.00 pm	Oral 04	Dr Sabrina Peter	Where is the tooth? Aspirated teeth during emergency intubation following maxillofacial trauma: A case report.
3.00-3.15 pm	Oral 13	Dr Sabrina Peter	Hypernasality In Singing Among Children with Cleft Palate: A Preliminary Study
3.15-3.30 pm	Oral 14	Dr Wong Siong Ting	Understandability, Actionability and Readability of Printable Oral Health Education Materials Produced by the Ministry of Health Malaysia
3.30-3.45 pm	Oral 15	Dr. Rathmawati Ahmad	The Correlation between Oral Health Status and Daily Sugar Exposures among Cerebral Palsy Children in Kelantan
3.45-4.00 pm	Oral 16	Dr Nadhratul Husna Mohamad	Application of the index of orthognathic functional treatment need (IOFTN) on patients with dentofacial deformity: a retrospective analysis
4.00-4.15 pm	Oral 17	Dr Ainilhusna Amin	Oral myiasis in Keningau: a case series and review of literature
4.15-4.30 pm	Oral 18	Dr Najla Almaki Ben Masoud	HemCon® Dental Dressing for Post-Extraction Bleeding in Warfarin Patient: Systematic Review
4.30-4.45 pm	Oral 19	Dr Sindhuja Rajadorai	The anti-bacterial effect of zinc-doped phosphate-based glasses (Zn-PBGs) on Streptococcus mutans NCTC 10449
4.45-5.00 pm	Oral 12	Dr Lim Sing Ying	Outcome of revascularization of 57 non vital immature permanent teeth with follow up period of 30 months

ORAL 1

TITLE: 'Free Style' Secondary Mandibular Reconstruction: Tips and Tricks

Author: Farah Hanan, Shah Kamal Khan, Md Arad, Nur Ikram Hanim, Lee Chee Wei, Mohammad Adzwin
Affiliation Details : Oral & Maxillofacial Surgery Department, Hospital Kuala Lumpur

INTRODUCTION: Patient who had segmental resection of the mandible which crosses the midline and reconstructed only with reconstruction plate, usually present with functional and cosmetic deformities after some years, especially if there was inadequate soft tissue coverage. This is due to tissue contraction resulting the plate may fenestrated through the skin or mucosa. Secondary reconstruction is challenging in this circumstances. Virtual planning with stereolithography model is considered ideal in order to restore function and cosmesis. However, these facilities are not readily available at some centres. In this case report, we will discuss on secondary mandibular reconstruction with osteocutaneous fibula free flap that was done in "free style" manner. CASE REPORT: A 43-year-old Malay male was referred to Department of Oral and Maxillofacial Surgery, Hospital Kuala Lumpur for reconstruction of mandible with fibula free flap. He was initially diagnosed with ameloblastoma of mandible in 2014. Subtotal mandibulectomy and reconstruction with reconstruction plate were done. However, the plate fenestrated and fractured. Long span mandibular reconstruction with osteocutaneous fibula free flap was performed at our center by using facial and mandibular anthropometry. CONCLUSION: Patient recovery was uneventful. Form and function were restored. Patient is now able to consume soft diet. Overall, his quality of life has improved after the secondary reconstruction.

ORAL 2

TITLE: Management of Mandible Fracture in a Young Growing Child: A Case Report

Authors: Nik Nurhannan Mohd Badarudin, Nurulnazra Mohd Areffin, Hassiah Salleh
Affiliation Details: Department of Paediatric Dentistry, Hospital Raja Perempuan Zainab II, Kota Bharu

INTRODUCTION: Recently, there have been considerable improvements in the management of maxillofacial injuries in children. The pattern of fractures and frequency of associated injuries are almost similar to adults but the overall incidence is much lower compared to them. Management of facial and dental injuries in children requires knowledge about a child's particular stage of development. Hence, accordingly modification of the treatment approach is necessary in view of the child's future growth and development. **CASE REPORT:** A 9 years old Malay boy with no known medical illness presented to our paediatric dental clinic complaining of right facial swelling and pain following motor vehicle accident. Upon clinical examination, the diffuse facial swelling was tender upon palpation with limitation in mouth opening. Intraorally, no sublingual haematoma was noted but there was a slight occlusal derangement. Radiographic investigation revealed a fracture line of left parasymphysis and minimally displaced right angle of mandible fracture. Close reduction with a modified Gunning splint was done, then the patient was put under flexible maxillomandible fixation (MMF) for two weeks. The splint was removed after a month with a favourable sign of bony healing noted radiographically. **CONCLUSION:** Managing maxillofacial fracture in a young growing child requires special attention to the anatomic and physiologic considerations. Majority of the cases can be managed conservatively by observation or closed reduction in non-displaced or minimally displaced fractures. Long term follow up is required to monitor any potential growth abnormalities.

ORAL 3

TITLE: Recurrent Ameloblastoma Extending into Infratemporal Fossa.

Authors: Nik Salwani Nik Burhanuddin, Shah Kamal Khan Jamal Din, Ajura Abdul Jalil, Lee Chee Wei, Nur Ikram Hanim Abdul Rahim, Md Arad Jelon, Mohammad, Adzwin Yahiya
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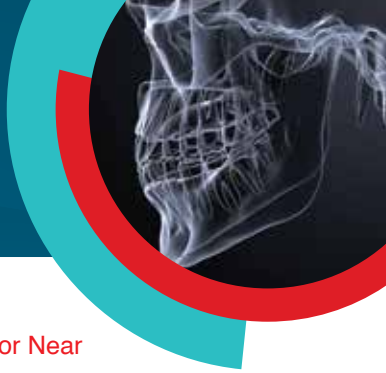
INTRODUCTION: Ameloblastoma is the most common epithelial odontogenic tumor, and it accounts for 10% of all tumors that arise in the mandible and maxilla. Ameloblastoma is generally considered to be a benign lesion with locally invasive behaviour and high tendency to recur. The risk of recurrence is reported to be significantly reduced after radical treatment by 15-25% compared to conservative surgical treatment about 75-90%. However, there are some reports of soft tissue recurrent ameloblastoma around osteotomy area after radical treatment. **CASE REPORT:** The case is about a 49-year-old Malay female, known case of multi-recurrent ameloblastoma with history of multiple surgeries referred to Oral & Maxillofacial Surgery, Hospital Kuala Lumpur. She presented with a huge swelling over the left midface extending to temporal area and floor of the mouth. This is the fifth episode of recurrence after four surgical resections have been performed. Computed tomography demonstrated two separate lesions; left midface with involvement of left infratemporal region and floor of the mouth. Extensive resection of tumor was performed



via hemifacial degloving approach. The initial plan was to reconstruct the defect with fibula osteomyocutaneous free flap. However, due to extensive soft tissue defect, the large anterolateral thigh free flap was used to reconstruct temporal region and floor of the mouth. Reconstruction plate was used to preserve shape of the mandible and to suspend suprahyoid structures. Histopathology examination revealed an ameloblastoma with malignant changes. Accordingly, patient was planned for adjuvant radiotherapy.
CONCLUSION: Ameloblastomas have a high rate of local recurrence if not properly removed. Therefore it is a paradox to recommend for conservative treatment, especially in cases of large and expansive tumors. A radical surgical protocol with a good margin of safety should be adopted to prevent tumour recurrence. If in doubt, it is advisable to scrutinize the specimen to rule out malignant changes which may require adjuvant radiotherapy later to prevent further recurrence.

ORAL 4

TITLE: Where is the Tooth? Aspirated Teeth during Emergency Intubation Following Maxillofacial Trauma. A Case Report.

Authors: Sabrina Peter, Rosliza Parumo, Ma Bee Chai
Affiliation Details: Oral Surgery Department, Hospital Sultanah Aminah, Johor Bahru

INTRODUCTION: Aspiration of teeth from maxillofacial trauma is a familiar, yet a rare finding in the literature. In the event of emergency airway management, fractured teeth may be displaced unintentionally into the tracheobronchial tree during endotracheal intubation.
CASE REPORT: A 16-year-old male patient had traumatized and aspirated two portions of his front teeth during intubation, after being involved in a massive road traffic accident. He was then referred to the Chest Department of the hospital for removal of the crown of teeth identified to be in the right intermediate bronchus. Fibreoptic bronchoscopy was attempted but however only managed removal of one crown. The patient himself expectorated the other portion of the crown a few days later.
CONCLUSION: The purpose of this case report is to emphasize the importance of careful oral examination, which includes dental charting, and knowledge of the dental anatomy in accounting for missing teeth in a patient with facial trauma.

ORAL 5

TITLE: Cathedral Tryptich Design for Near Total Glossectomy Defect

Authors: Devi Aulia Aidil, Lee Chee Wei, Mohammad Adzwin Yahiya, Nur Ikram Hanim Abdul Rahim, Md Arad Jelon, Shah Kamal Khan Jamal Din
Affiliation Details : Oral & Maxillofacial Surgery Department, Hospital Kuala Lumpur

INTRODUCTION: Functional reconstruction after tumour resection of oral tongue squamous cell carcinoma remains a clinical challenge. The tongue plays a key role in speech and deglutition; therefore the ideal reconstructive method should provide not only satisfactory structural cosmetic, but also good restoration of function. Modification of microvascular free flap design like cathedral tryptich design of anterolateral thigh flap able to optimize postoperative oral function.
CASE REPORT: A 37 year old Chinese male was diagnosed with squamous cell carcinoma of left lateral border of tongue (Stage IV – T4a N1 M0). He completed 3 cycles neoadjuvant chemotherapy followed by surgery of near total glossectomy via lip split and mandibulotomy with bilateral neck dissection. Tongue defect was reconstructed with cathedral tryptich design of anterolateral thigh flap. The postoperative course was uneventful and he was able to tolerate fluid orally on the postoperative day 22.
CONCLUSION: The anterolateral thigh flap with a cathedral tryptich design restores a near normal mobile tongue shape and volume thus may improve functional outcome.

ORAL 6

TITLE: Cranial Vault Expansion for Treatment of Increased Intracranial Pressure and Papilledema in Pfeiffer Syndrome

Authors: Dr. Siti Nur Nabihah Zainul Abidin[1], Dr. Faizal Mohd Ahmad Bahuri[2], Assoc. Prof. Dr. Choo May May[3], Prof. Dr. Lucy Chan @ Helen Chan Kam Wan[1], Assoc. Prof. Dr. Firdaus Hariri[1], Prof. Dr. Dharmendra A/l Ganesan[2]
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Pfeiffer Syndrome is a rare genetic disorder that was first described in 1964. The cause is mutations in the FGFR 1 and FGFR 2 genes. The condition is of autosomal dominant inheritance, affecting about 1 in 100 000 births. There are three types of Pfeiffer syndrome that have been observed. Its clinical presentation includes craniosynostosis which is caused by premature closure of sutures in the cranial vault,

the cranial base, and in the midface, leading to growth disturbance, abnormal function, and distorted appearance. Significant functional issues include elevated intracranial pressure, papilledema, optic nerve atrophy, severe exorbitism, hydrocephalus, moderate to severe midface hypoplasia and brain dysfunction. Papilledema, also known as papilloedema, is optic disc swelling that is secondary to elevated intracranial pressure. The disc swelling in papilledema is the result of axoplasmic flow stasis with intra-axonal edema in the area of the optic disc. This condition if left untreated will result in partial or complete blindness. A case report of a 18-months-old Malay girl with the diagnosis of Pfeiffer Syndrome presented with increased intracranial pressure and bilateral papilledema. As part of the surgical treatment, cranial vault expansion via barrel stave craniotomy was done in order to reduce the elevated intracranial pressure. Postsurgical intervention showed a very good result to the optic disc. The clinical, characteristic radiological features and investigations carried out, along with treatment of this patient are discussed as part of multidisciplinary management.

ORAL 7

TITLE: Posterior Cranial Vault Expansion Using Distraction Osteogenesis – Our Experience

Authors: C.C. Tan[1], N. F. Bahuri[2], Hariri F.[1], Ganesan, D.[2]
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Craniosynostosis is the premature fusion of one or more cranial sutures resulting in misdirect growth pattern of craniofacial complex and eventually distort the shape and function of brain, skull and face. The surgical management of non-syndromic and syndromic craniosynostosis aims for reducing intracranial pressure and progression of turricephaly is challenging and resource demanding. Various strategies have been detailed in the literature. Although general guidelines are in place, but there is no consensus on the best timing and surgical technique used. Here, we would like to share our experience on posterior cranial vault expansion using distraction osteogenesis in three syndromic craniosynostosis cases. The aspects of emphasis include the surgical technique, distraction protocol and complications associated with posterior cranial vault distraction osteogensis. Distraction osteogenesis technique in posterior cranial vault expansion is useful in increasing the intracranial volume thus treating the increased intracranial pressure and the technique carries little risks and complications.

ORAL 8

TITLE: Salvage of a Radial Forearm Free Flap – What Have We Learned?

Authors: Batmaraj Rawisandran, Shah Kamal Khan Jamal Din, Md. Arad Jelon, Nur Ikram Hanim Abdul Rahim, Lee Chee Wei, Mohammad Adzwin Yahiya.
Affiliation Details: Department of Oral & Maxillofacial Surgery, Hospital Kuala Lumpur

INTRODUCTION: Free flap is one of the most reliable methods in reconstructing large oro-maxillofacial defects post tumour ablation. From the literatures, free flap accounts a success rate of more than 95% in renowned center. Flap crisis is part and parcel in microvascular reconstructive surgery. Vascular occlusion (thrombosis) remains the primary reason for flap loss, with venous thrombosis being more common than arterial occlusion.
CASE REPORT: A 30 year old Chinese male was referred for squamous cell carcinoma of the left lateral border of tongue. Patient was then subjected to wide excision of tumour, bilateral neck dissection and reconstruction with left radial forearm free flap. Post-operative day 4, signs of venous congestion noted and patient was then pushed in for exploration of free flap under general anesthesia. The vein was re anastomosed. Flap was then salvaged successfully.
CONCLUSION: Venous thrombosis is the most common cause of free flap failure. Careful monitoring over the first 48 hour by experienced team member should allow early identification of flap compromise. Rapid re-exploration in this clinical setting is crucial to maximize the chances of flap salvage.

ORAL 9

TITLE: Submental Island Flap and Its Potential for Oral Cavity Reconstruction

Authors: Sathana Priya Regupathy, Lee Chee Wei, Mohammad Adzwin Yahiya, Nur Ikram Hanim Abdul Rahim, Md. Arad Jelon, Shah Kamal Khan / Jamal Din
Affiliation Details : Dept. of Oral and Maxillofacial Surgery, Hosp. Kuala Lumpur

INTRODUCTION: The submental flap was first described by Martin et al in 1993. Since then the flap has been a new alternative for reconstruction of small to moderate size oral cavity soft tissue defects. Submental flap is an axial patterned flap based on the Submental branch of the facial artery and is relatively easy to harvest.
CASE REPORT: 58 year old Malay gentleman came with bony hard swelling right lower jaw region since 2 years ago. Biopsy was done and the results was ameloblastoma of right body of mandible. Management of patient was agreed

to be segmental mandibulectomy and reconstruction with reconstruction plate and submental flap. The patient's recovery was satisfactory with minor complications. The flap had healed well and provided bulk and adequate coverage for the intraoral defect.

CONCLUSION: The submental flap is reliable and versatile flap, a valid option for reconstruction of intraoral soft tissue as well as composite oral defects particularly in elderly patients or when more complex reconstructive work is not feasible.

ORAL 10

TITLE: Tensor Fascia Lata Sling Technique for Total Lower Lip Reconstruction

Authors: Fadhli Reza Zainal, Shah Kamal Khan Jamal Din, Md. Arad Jelon, Nur Ikram Hanim Abdul Rahim, Lee Chee Wei, Mohammad Adzwin Yahiya

Affiliation Details: Department of Oral & Maxillofacial Surgery, Hospital Kuala Lumpur

INTRODUCTION: When it comes to tumour of the lip, surgeons need to consider the ideal reconstruction that improve the quality of life of the patient. A lot of factors need to be considered especially to restore oral competency and prevent sialorrhea. One case where reconstruction with anterolateral thigh flap with tensor fascia lata were used to reconstruct a large lip defect to regain the oral competency of the patient

CASE REPORT: 60-year-old Indian lady came with growth of the lower lip since 2 years ago. Biopsy was done and the results was squamous cell carcinoma of the lip. The lesion involved the whole lower lip, left commissure and lateral 1/4th of the left upper lip, the whole left buccal mucosa and also extend to the left side of hard and soft palate. Management of the patient was agreed to be tracheostomy, left neck dissection, wide excision of tumour and maxillectomy, dental clearance and reconstruction with anterolateral thigh free flap with tensor fascia lata. Patient's post-operative recovery was uneventful. After 3 weeks post operation, patient came for follow up and was able to achieve oral competency and prevent sialorrhea.

CONCLUSION: Combination of both antero-lateral thigh flap and tensor fascia lata to reconstruct a big defect especially the lower lip can be considered to increase the quality of life of the patient especially in restoring functions of the oral competency and to prevent sialorrhea.

ORAL 11

TITLE: In House 3D Virtual Planning and Template-guided Surgery in Ameloblastic Carcinoma: The Next Level of Mandibular Reconstruction

Authors: Syahir Hassan[1], Shah Kamal Khan Jamal Din[2], Md Arad Jelon[2], Nur Ikram Hanim Abdul Rahim[2], Lee Chee Wei[2], Mohammad Adzwin Yahiya[2]

Affiliation Details : [1]Dept of Oral & Maxillofacial Clinical Sciences, Faculty of Dentistry, University of Malaya, Kuala Lumpur, [2]Dept of Oral and Maxillofacial Surgery, Hospital Kuala Lumpur

INTRODUCTION: Every year, number of patients with mandibular defect due to tumours has been rising in Malaysia. The results of the repair or reconstruction will directly affect the oral function and facial aesthetic. Therefore there is a need for proper diagnosis, planning and high surgical quality in the mandibular reconstruction. In this modern medicine, computer-aided design and additive manufacturing has become mainstream due to its accuracy, simplicity and reducing operating time. However special software or services provided by the commercial companies are too expensive or not readily available for the surgeons.

CASE REPORT: A mandibular reconstruction with free fibula flap was successfully done in Ameloblastic Carcinoma case using in house 3D virtual planning and template-guided surgery. Pre-operatively, the measurement of volume, design and fabrication of templates was done using free open source software (3D Slicer and Autodesk Meshmixer Software). Intra-operatively, key to the accuracy is determined by mandibular osteotomy template, fibula osteotomy template and fibula positioning template which was designed by us. All of the templates were fitted well and post-operative result revealed good symmetry and acceptable function of the mandible which comparable with pre-operative planning.

CONCLUSION: Without using expensive commercial service or software, we were able to do virtual surgical planning and fabricate osteotomy templates for the mandible and fibula. The accuracy of mandibular reconstruction surgery is increased significantly and is less time-consuming. Patient satisfied with both the recovery of oral function and appearance.

ORAL 12

TITLE: Outcome of Revascularization of 57 Non Vital Immature Permanent Teeth with Follow Up Period of 30 Months

Authors: Lim Sing Ying[1], Sarimah Mohd Mokhtar[1], Laila Abdul Jalil[1]
Affiliation Details: [1]Department of Paediatric Dentistry, Tuanku Jaafar Seremban Hospital, Malaysia

PURPOSE OF STUDY: To evaluate the treatment outcome of revascularization procedure on non vital immature permanent teeth (NVIPT). **MATERIAL AND METHODS:** All NVIPT of healthy children which were treated by means of a standardized revascularization protocol from year 2013 to 2017 and had been periodically followed up of a minimum of 24 months were included in the study. All teeth were assessed clinically and radiographically. Romexis radiographic system was used to carry out quantitative analysis of the radiographs (degree of changes in root length and dentinal wall thickness). The data obtained were analysed statistically using descriptive analysis and Chi-square test. **RESULT:** Out of 82 cases, 57 NVIPT of 53 children with the mean age of 12 (SD ± 2.2) fulfilled the inclusion criteria. They were monitored closely for an average of 30 months (range of 24 to 48 months). 37 (64.9%) cases showed complete success with signs of resolution of periapical radiolucency, thickening of dentinal wall, continuation of root growth, apical closure and positive response to sensibility test. 14 (24.6%) cases demonstrated acceptable success with absence of signs and symptoms but lacking in any criteria of complete success. 6 (10.5%) cases had signs of treatment failure, needing further treatment which reduces the survival rate to 96.5%. There was significant association of treatment outcome and root formation stage of NVIPT ($p < 0.05$).
This study confirmed that revascularization is an effective treatment modality in treating NVIPT with favorable clinical outcome of thickening of dentinal wall, root growth and achieving apical closure.

ORAL 13

TITLE: Hypernasality in Singing Among Children with Cleft Palate: A Preliminary Study

Authors: Sabrina Peter, Zainal Ariff bin Abdul Rahman, Yap Jin Han, Stefanie Pillai
Affiliation Details: University of Malaya, Kuala Lumpur, Malaysia

PURPOSE: This study aims to document differences of hypernasality among children with cleft palate during speaking and singing and to compare the nasality score ratings by trained as well as untrained listeners.

METHODS: Twenty participants with cleft palate aged between 7 to 12 years old were randomly selected for this study. Audio recordings were made of these children reading a passage and singing a common local song, both in the Malay Language. The degree of hypernasality was judged through perceptual assessment. Three trained listeners i.e. a speech therapist, a classical singer and a linguistic expert, who are academicians and 2 untrained listeners i.e. a cleft volunteer worker and a national high school teacher assessed the recordings using the Visual Analog Scale (VAS).
RESULTS: Inter-rater and intra-rater reliability were verified using intra-class correlation coefficients (ICC) on hypernasality of both speaking and singing. Significant reduction of hypernasality were observed during singing as compared to speaking, indicating that when a child with cleft palate sings, hypernasality reduces.
CONCLUSIONS: The act of singing significantly reduces hypernasality. However, future research is necessary to objectively measure hypernasality in singing compared to speaking as well as proper visualization of the velopharyngeal complex during singing among children with cleft palate. This study was supported by the Postgraduate Research Fund, University of Malaya.

ORAL 14

TITLE: Understandability, Actionability and Readability of Printable Oral Health Education Materials Produced by the Ministry of Health Malaysia

Authors: Wong Siong Ting[1], Norkhafizah Saddki[1], Wan Nor Arifin[2]
Affiliation Details: [1]School of Dental Sciences, Universiti Sains Malaysia, Health Campus, 16150 Kubang Kerian, Kelantan, Malaysia; [2]Unit of Biostatistics and Research Methodology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus, 16150 Kubang Kerian, Kelantan, Malaysia

PURPOSE OF THE STUDY: This study assessed understandability, actionability and readability of printable oral health education (OHE) materials produced by the Ministry of Health Malaysia (MOH). **MATERIALS AND METHODS:** A total of 26 printable OHE materials of different types were assessed. The Bahasa Malaysia version Patient Education Materials Assessment Tool for Printable Materials, PEMAT-P(M) and Khadijah Rohani's Readability Formula were used to assess understandability and actionability, and readability respectively. Of 26 materials, only 10 were evaluated for readability because the formula is applicable only for materials with over 300 words. **RESULTS:** Readability of the OHE materials ranged from Primary 5 to Form 2 education level. All 26 materials

achieved high understandability and actionability rating. Understandability score of the materials ranged from 73.3% to 100.0% with a mean score of 91.9% (SD 7.06%), and the actionability score ranged from 80.0% to 100.0% with a mean score of 93.6% (SD 9.05%). However, some materials were rated poorly in several understandability and actionability items. Low rating in understandability items was due to absence of: clear purpose (2 materials), medical terms definition (2 materials), summary (19 materials), and visual aids captions (7 materials). Additionally, some materials used jargon (2 materials) and have tables with incomplete or unclear headings (4 materials). Low rating in actionability items was due to poorly explained charts, graphs, tables or diagrams (3 materials), lack of visual aids that make the instructions easier to act on (2 materials), and not addressing users directly when describing action (4 materials).

CONCLUSION: Overall, the MOH OHE materials were understandable, actionable and readable for Malaysian population with primary education level and above. Nevertheless, few shortcomings for improvements were noted. This study was supported by the USM Research University Grant (1001 / PPSG / 812155).

ORAL 15

TITLE: The Correlation between Oral Health Status and Daily Sugar Exposures among Cerebral Palsy Children in Kelantan

Authors: Rathmawati Ahmad[1,3], Normastura Abd Rahman[1,3], Ruhaya Hasan[1], Nik Soriani Yaacob[2,3]

Affiliation Details : [1]School of Dental Sciences, Universiti Sains Malaysia; [2]School of Medical Sciences, Universiti Sains Malaysia; [3]Cerebral Palsy Research Cluster, Universiti Sains Malaysia

PURPOSE OF THE STUDY: To determine and correlate the dental caries experiences, dental plaque maturity scores (DPMS) and daily sugar exposures (DSE) among cerebral palsy (CP) children in Kelantan.

MATERIALS AND METHODS: A cross-sectional study was conducted on 96 CP children aged 5-7 years from Community-Based Rehabilitation Centres in Kelantan who were not on feeding or gastrostomy tube. Dental caries experiences were determined by DMFT/dft index. DPMS was determined by using GC Tri Plaque ID Gel® (0=without plaque, 1=immature plaque, 2=mature plaque and 3=acid-producing plaque) and DSE measured the caries risks of the children (0-4=low risk, 5-7=moderate risk and ≥8=high risk). Statistical analysis was done by using IBM SPSS version 24.0. Pearson correlation analysis was used and the significant level was set at <0.05. **RESULTS:** Among 96 CP children, majority were boys (54.2%) with the mean (SD) age of 11.9 (4.86) years. Almost half (42.7%) of the children never had any dental visit. The mean (SD) of DMFT, dft, DPMS and DSE were 3.7 (5.47), 3.1 (4.99), 2.5 (0.68) and 6.1 (2.49), respectively. There was no significant correlations between both caries experiences and DPMS with DSE (P>0.05).

CONCLUSION: CP children in Kelantan had a moderate level of caries experiences, with mature to acid-producing plaque and at moderate risk of dental caries based on DSE. Both dental caries experiences and plaque maturity were not significantly correlated with DSE. Parents of CP children should play a crucial role in controlling the daily sugar consumption, plaque removal and regular dental visits to improve their oral health status. This study was supported by CPRC RU Top Down Grant No.1001.CSKK.870020 and CPRC team members.

ORAL 16

TITLE: Application of the Index of Orthognathic Functional Treatment Need (IOFTN) on Patients with Dentofacial Deformity: A Retrospective Analysis

Authors: Soh Chen Loong, Ravindran Murugesan, Farah Aliya Mohamed Azahar, Nadhratul Husna Mohamad

Affiliation Details: Hospital Selayang, Lebuhraya Selayang- Kepong, 48100 Batu Caves, Selangor

PURPOSE OF THE STUDY: The aim of this retrospective review was to assess the usage of the IOFTN in a South East Asian craniofacial deformity center setting with regards to patients having dentofacial deformity indicated for orthognathic surgery.

METHODS: A retrospective study was carried out on patients who had undergone orthognathic surgery at Selayang hospital from January 2011 to February of 2017. Variables measured included skeletal sagittal relationship, malocclusion classification, type of osteotomy, IOTN score and IOFTN score.

RESULTS: 84 patients with a mean age of 21.38 was included in the study. The most prevalent IOFTN score in our sample was 5.3 (33.3%) followed by 4.3 (13.1%). 33.4% of patients were classified as having a great need for treatment and 57.1% a very great need for treatment. 9.5% of patients have a moderate need for treatment. No patients were graded below 3.

CONCLUSION: The IOFTN is a reliable tool and a more accurate indicator of treatment need for patients with dentofacial deformity requiring orthognathic surgery compared to the IOTN.

ORAL 17

TITLE: Oral Myiasis in Keningau: A Case Series and Review of Literature

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Affiliation Details: Oral and Maxillofacial Surgery Department, Hospital Keningau, Sabah

PURPOSE OF STUDY: The objective of this study was to illustrate our experience with oral myiasis, with particular emphasis on clinical presentations, medical co-morbidity and management of the patients.
MATERIAL AND METHODS: The study was retrospective in nature, with cross-sectional design, of patients with oral myiasis who were referred to Oral and Maxillofacial Surgery Department, Hospital Keningau between June 2017 and November 2017 (6 months). Data was gathered from the medical notes of the patients and recorded in a customised pro-forma and descriptive statistics were employed. In addition to that, a literature review was carried out.
RESULTS: The sample consisted of 5 geriatric patients, with male preponderance (4 males and 1 female). Mean age of the sample was 70.4 years. All of the patients had underlying Hypertension and Cerebrovascular accident and presented with poor oral hygiene. Common areas involved included upper labial sulcus and palatal mucosal region. Mechanical removal of the larva was carried out in all the cases over several days with the aid of turpentine oil. More than 15 maggots were removed in each patient with the highest number being 133 maggots. Antibiotics used included Amoxycillin with clavulanic acid, Cefuroxime and Metronidazole whereas Chlorhexidine gluconate 0.2% mouthwash were the treatment of choice in all the patients. Minimal local debridement was carried out when required. Two patients healed well and another two patients expired due to underlying medical complications and one patient was lost to follow-up.
CONCLUSIONS: Risks of developing oral myiasis are high in certain population. Proactive education of carers of the population at-risk by the healthcare workers is fundamental in its prevention and early detection.

ORAL 18

TITLE: HemCon® Dental Dressing for Post-Extraction Bleeding in Warfarin Patient: Systematic Review

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PURPOSE OF THE STUDY: Dental extraction in patients receiving oral anticoagulants can be complicated by post-extraction bleeding. The present study aimed to compare the effectiveness of HemCon® Dental Dressing (HDD) in controlling post-extraction bleeding in patients receiving oral anticoagulants without the interruption of oral anticoagulants used with other common local haemostatic agents.
MATERIALS AND METHOD: A systematic review study searched on this topic was conducted through Medline; Embase; The Cochrane Library and other clinical trials websites. The systematic review and meta-analysis were developed based on the PICO tools. Only articles in English language and patients receiving oral anticoagulants were recruited. Two reviewers assessed the quality of the papers and then performed the selection and extraction of the data. The search terms were “HemCon® Dental Dressing”, “spongostans”, “oxidase cellulose”, “post-extraction bleeding”, “anticoagulants” and “warfarin”.
RESULTS: Five randomized controlled trials involving 264 patients were retrieved; two compared the HDD with the conventional method of pressure packing with sterile cotton gauze; two compared HDD with gelatin sponge and oxidase cellulose; and the last one compared HDD with the new haemostatic agent, platelet-rich plasma. The International normalized ratio (INR) for the patients was less than four. The meta-analysis showed that HDD significantly reduced the time of post-extraction bleeding compared to the control groups. The pooled estimated effect for post-extraction bleeding was 25.3 (95%CI, 17.3-32.76), the p-value was less than 0.00001, $I^2 = 99\%$.
CONCLUSIONS: The HDD possesses good anti-haemorrhagic properties. It is significantly effective in improving bleeding time after tooth extraction in patients receiving oral anticoagulants compared with other local haemostatic agents.

ORAL 19

TITLE: The Anti-bacterial Effect of Zinc-doped Phosphate-based Glasses (Zn-PBGs) on Streptococcus mutans NCTC 10449

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PURPOSE OF STUDY: Enamel demineralisation is highly prevalent during orthodontic treatment and S.mutans is the main bacteria implicated. Novel Zn-PBGs are controlled zinc delivery agents that may be an effective anti-bacterial agent thus promoting a reduction in demineralisation. **MATERIALS AND METHODS:** Zn-PBGs (C11, C12 and C13) and zinc free control glasses (C-PBG) were produced. Glass characteristics were assessed through degradation studies, pH analyses and ion release kinetics. Anti-bacterial effects were assessed through disc diffusion assays, liquid broth analysis and CDFF model. Disc diffusion assays were conducted on isosensitest (IST) agar with cultures of S.mutans NCTC10449. The zones of inhibition around the glasses were measured. Liquid broth assay using S.mutans suspensions exposed to C11, C12, C13, 0.2% chlorhexidine and C-PBG was assessed by viable colony forming units (CFU). Biofilm was grown in the CDFF model on bovine enamel discs exposed to C11, 0.2% chlorhexidine, 0.05% sodium fluoride or water on day 5 and day 12. Transverse micro-radiography (TMR) was used to quantify mineral loss (ΔZ) from bovine enamel. All tests were conducted in triplicate. ANOVA, Tukey Kramer, Pearson Correlation and paired T-tests were used. p values <0.05 were considered statistically significant. pH analyses showed significant difference for C12, C13 compared with C-PBG. Degradation rates of Zn-PBGs were significantly different from C-PBG. Zinc ion release was decreased as calcium concentration increased in the glasses.
RESULTS: Zones of inhibition were significantly increased for Zn-PBGs compared with C-PBG. Viable CFU in the untreated group and C-PBG were significantly increased compared with Zn-PBGs. Bovine enamel exposed to C-PBG, NaF, chlorhexidine and enamel discs (ED) at day 12 showed significant mineral loss whilst bovine enamel exposed to C11 between day 5 and day 12 in the CDFF model showed no significant mineral loss.
CONCLUSION: Controlled delivery of zinc from Zn-PBGs may have potential in oral applications due to its anti-bacterial effect.

ORAL 20

TITLE: Who Am I? : Unexpected Post-operative Psychosis

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Ecological factors such as traumatic brain injury, psychosocial stress and drug abuse can trigger psychosis. The British Psychological Society describe a psychological perspective of psychosis includes hallucinations, delusions, thought disorders, suspiciousness and confusion. The exact cause of postoperative psychosis has not been identified. Multiple studies have shown that, post-operative psychosis can be instigated by anaesthesia drugs and steroid usage intra and post-operatively without involvement of any brain injury. According to the British Journal of Anaesthesia, the term post-operative psychosis should only be used for psychiatric syndrome that appears within several days following surgical procedures that is done under general anesthesia. Anesthetic drugs that induced psychosis has been reported worldwide. Several reports have also shown that post-operative psychosis can be attributed by usage of Dexamethasone perioperatively. We report a case of a 42 years old gentleman which developed psychosis post-operatively after undergoing major oral and maxillofacial surgeries who alleged motor-vehicle accident and sustained pan facial trauma without any significant brain injury. Patient developed abroad array of behavioral symptoms including psychosis, a few hours post procedures causing difficulties in postoperative management. He was disorganized, agitated and easily irritable. Patient also presented with an acute psychotic episode such as delusions, sleep disorders, suspiciousness, confusion and uneasiness with others. Findings of computed tomography of the brain, and hematologic tests were normal. However, the urine test for Cannabinoids was positive. With all these factors, we tried to associate and conjecture the causes of this event to the patient's behavior symptoms post operatively. It is important to raise the awareness among Oral & Maxillofacial Surgeons regarding this potential complication following surgical interventions so that measures for further management and care can be provided accordingly in such event.