

O1-01 Preference Of University Malaya Undergraduate Students In The Type Of Material For Direct Posterior Restoration

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Objective: To identify the preferred material for direct posterior restoration whether amalgam or composite among undergraduate dental students.

Method: Cross sectional study. A questionnaire was distributed to third year (n=45) and fifth year (n=73) dental students of University of Malaya to collect information on their preferences for restorative materials during restoration of posterior dentition. Statistical analysis was performed using SPSS software.

Results: 88.1% of Year 3 and 87.3% of Year 5 students chose composite as the material of choice for posterior restoration. There is significant association between student's clinical years with theoretical knowledge of restorative materials ($p=0.021$). There is no significant relationship observed between the preference of materials and clinical experience ($p=0.904$). There is no significant difference observed between their confidence level and clinical experience ($p=0.144$). Moisture control (99.1%), aesthetic demand (98.2%), size of cavity (92.9%) and subgingival margin (91.1%) were identified to be among the top factors that will influence student's preference of material when restoring posterior teeth. Majority of students answered that it is still relevant to continue teaching dental undergraduate about amalgam in the future (Year 3 = 88.1% and Year 5 = 85.9%).

Conclusion: Majority of students prefer composite resin compared to amalgam in performing a direct posterior restoration.

Key words: composite resin, dental amalgam, posterior composite, dental student, dental education

O1-02 Comparison of cleaning protocols of nickel-titanium files: SEM study

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Objectives: To evaluate debris removal efficacy of cleaning protocol of nickel titanium (NiTi) files practiced in Faculty of Dentistry, UM by comparing it to the modified Parashos et al.'s protocol.

Methods: Premolars with fully formed apices, first bend file size \leq #15 and working length \leq 21mm were selected. The sample of N = 4 NiTi files (TF Adaptive, SybronEndo, Mexico) were contaminated by means of canal contamination and then divided equally into two cleaning protocol groups which are A(UM) and B(modified Parashos et al.). In A, files are cleaned by ultrasonication in 1% enzymatic solution (Gigazyme, Schulke, Germany) for 15 minutes and rinsed under running water. In B, files are cleaned with 10 vigorous strokes in scouring sponge soaked in 0.12% chlorhexidine solution, 30 minutes pre-soaking in 1% enzymatic solution followed by 15 minutes ultrasonication in 1% enzymatic solution for 15 minutes and rinsed under running water. Files were viewed for debris presence under scanning electron micrograph (SEM).

Results: There is no statistically significant difference between groups A and B with $p = 1.000$ (Mann-Whitney test).

Conclusion: The efficacy of UM's NiTi files cleaning protocol is comparable to the modified Parashos et al.'s protocol.

Keywords: Endodontics; Nickel Titanium files; Infection control; Cleaning protocols.

O1-03 A cross-sectional audit of full coverage crown resulting in failure secondary to pulpal involvement

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Objectives: This cross sectional study investigates the incidence of secondary pulpal involvement in crowned with and without root treated teeth. Besides, this study also aimed at identifying the success rate between teeth crowned with and without root treatment.

Methods: The respondents were identified from among patients who received crown treatment at the Faculty in Dentistry, University of Malaya database before the year 2015. Walk in patients fulfilling the criteria were also recruited for the study. These patients were then classified as either as those with root canal treated (RCT) treated crowns and non-RCT treated crowns. The status of the crowned tooth was gathered by interviewing the patient as well as clinical and radiographic examination. Periapical radiograph was taken for every crowned tooth to examine status of periapical condition including the alveolar bone, lamina dura, periodontal ligament and the surrounding bone.

Results: A total of 66 crowns were examined for any signs of failure secondary to pulpal involvement. Majority of the respondents were Chinese (62.1%), female (59.1%) and aged between 23 to 74 years. There were 35 crowns with RCT and 31 without RCT, mostly maxillary anterior teeth. Comparatively, there was more plaque accumulation (74%) and bone recession (19%) around crowns without RCT. Gingival inflammation (28%), widening of the periodontal ligament (PDL) (28%) and periapical (PA) lesion (9%) was higher among teeth with RCT. There was statistically significant difference for poorer alveolar bone condition for crowns that have been in the mouth for > 10 years.

Conclusion: Based on the study, there was no statistically significant different in secondary pulpal involvement or alveolar bone condition between teeth crowned with RCT and without RCT.

Keywords: Crowns, root canal treatment, secondary pulpal involvement, alveolar bone, success rate

O1-04 Microleakage of Different Thickness Restoration Materials Used in Endodontically Treated Teeth by Dye Penetration: An In Vitro Study

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Objectives: To evaluate if sandwich technique (Filtek Z350 XT and SDR) can reduce microleakage and with additional layer (GIC) can reduce further microleakage and also to determine whether the thickness of SDR has an influence to the microleakage

Method: 72 intact maxillary incisors were used. Following instrumentation, all canals were obturated with gutta-percha and Roth sealer. Gutta-percha was removed 2mm below cemento-enamel junction and the crown was cut until 6mm length from the gutta-percha to the incisal edge was achieved. The teeth were divided into four experimental groups (n=18). Access restoration was placed: G1:2SDR + 4Filtek; G2:4SDR + 2Filtek; G3:2GIC + 2SDR + 2Filtek; G4:6SDR. All samples were thermocycled (500 cycles at 5° and 55°C for 30s), coated with nail varnish leaving 1mm margin around the restoration, immersed in 2% Rhodamine B solution and sectioned longitudinally. The dye penetration was measured under a stereomicroscope with 1.25x magnification using Digi Acquis Twain 2.0 software and scored. The data were analysed using Kolmogorov-Smirnov test, ANOVA test and post-hoc Tukey's HSD test.

Result: In relation to the thickness of SDR and Filtek used in G1 and G2, G1 showed less microleakage. However, more reduced microleakage shown with additional GIC used in G3 but no significant difference between G1 and G3 (p=0.513).

Conclusion: Sandwich technique of composite Filtek and SDR reduces microleakage. 2mm of SDR with 4mm of Filtek has the least microleakage but with additional 2mm of GIC Fuji II further reduces the microleakage.

Keywords: Coronal microleakage; Endodontic; Composite Resin; Smart Dentine Replacement; Glass Ionomer Cement.

O1-05 Preliminary Study Assessing Remineralisation of Early Caries with Soprolife®

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Objective: The aim of this study was to assess the effectiveness of minimal intervention via fluoride therapy in management of early caries lesion with the aid of Soprolife®.

Methods: A total of 40 patients were recruited, (mean age=23 years) and were assigned to low and moderate caries risk groups (n=20). 80 occlusal surfaces of posterior teeth were examined for early caries lesion visually and using Soprolife® at baseline and 2 months later at recall visit. At baseline visit, patients were given oral hygiene education, fluoridated toothpaste for homecare and topical fluoride application. Soprolife® images acquired were analysed using Image J software version 1.50. Difference in the mean value of intensity of the red wavelength spectrum between baseline and recall visits, (ΔI), were analysed for both risk groups. ΔI for upper and lower first molar teeth were also analysed. Statistical analysis included Mann-Whitney U and paired T-test.

Results: Results show no statistical difference for ΔI between low and moderate risk groups ($p=0.13$). There is no statistical difference in ΔI within the low caries risk group ($p=0.42$) but there is significant difference in the moderate risk group ($p=0.02$). No statistically significant difference in ΔI value between upper first molars (UFM) group ($p=0.80$) and lower first molars (LFM) group ($p=0.07$) and also within each group (UFM: $p=0.31$, LFM: $p=0.27$) were detected.

Conclusion: The results obtained shows that Soprolife® can be used as a supplement to visual caries detection and monitoring of early caries lesions.

Keywords: Caries, caries risk assessment, fluoride, LIFEDT concept, CAMBRA

O1-06 Comparison Between Pre-drawn Mandala Colouring And Free Drawing in Art Therapy Among Paediatric Dental Patients: A Pilot Study

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Objectives: To compare the effectiveness between free drawing and pre-drawn mandala colouring art therapy techniques in reducing dental anxiety among paediatric patient.

Methods: Six anxious paediatric dental patients, aged four to six years old were selected as subjects. The patients received art therapy for 20 minutes before they undergo dental treatment. Art therapy technique used in first visit was free drawing, the subjects were given a piece of blank canvas with water based acrylic paint while in second visit, they were given a piece of pre-drawn mandala paper, crayon colours and coloured pencils for pre-drawn mandala colouring. The patients' anxiety level was measured by using Malay-Modified Child Dental Anxiety Scale (MCDAS_f) before and after dental treatment. Frankl Behaviour Rating Scale was used to assess the patients' behavior during dental treatment.

Results: There is no statistically significant difference between the MCDAS_f pre and post dental treatment ($p>0.05$), but the post treatment mean score of MCDAS_f decreased in both visits. The Frankl Behaviour Rating Scale also shows no significant difference in both visit ($p>0.05$) but the mean score is higher in second visit.

Conclusion: The pre-drawn mandala is more effective art therapy technique in reducing anxiety among paediatric patient compared to free drawing.

Keywords: dental anxiety, art therapy, free drawing, mandala colouring

O1-07 Effectiveness Of Oral Hygiene Education (Ohe) Delivered By Undergraduate Students

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Background: Oral hygiene education (OHE) is the implementation of knowledge to people about oral health. Thus, this study was conducted to evaluate the effectiveness of OHE delivered by University Malaya undergraduate dental students.

Method: The study sample of this study involved 20 adults patients registered for treatment in the outpatient department. Subjects were randomly divided into 2 groups: group 1 which was not given OHE, group 2 which was given OHE by dental student.

Results: Group 1 showed the mean plaque score fluctuate while the mean bleeding score showed increment from baseline to day 30. These changes has no significant different in plaque score ($p=0.134$) and bleeding score ($p=0.624$). In Group 2 there is gradual reduction from baseline to 30 days for both mean plaque score and mean bleeding score. However the changes is statistically no significant different ($p>0.5$) for both plaque score ($p=0.134$) and bleeding score ($p=0.624$).

Conclusions: There was no statistical significant difference for mean plaque score and mean bleeding score between the group without OHE and the group that received OHE.

Keywords: oral hygiene education, effectiveness, delivered by undergraduate students,

O1-08 Translation and Validity Assessment of Orthognathic Quality of Life Questionnaire

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Objectives: In this study, the English version of Orthognathic quality of life questionnaire (OQLQ) was translated to Malay language and its validity was assessed in a Malaysian adult population, aged 18 years and above, that seek orthognathic surgery treatment.

Methods: The translation comprised of stages of forward translation (Stage I), synthesis of translation (Stage II), back translation (Stage III), consolidation (Stage IV) and test of the final Malay translated version on 52 patients via email and interview (Stage V)⁴. Reliability test was done by re-administration of the questionnaire two weeks later (30% of participants). OHIP(M) was used for validity testing and comparison between domains.

Results: Internal consistency for social aspects of deformity, oral function and awareness of facial deformity satisfied the cut-off value (where 0.7-0.8 regarded as satisfactory and above 0.9 is desirable). Validity testing confirmed a moderate to strong correlation between domains of OQLQ with domains of OHIP. Exploratory factor analysis showed the items for the domains social aspects of deformity, oral function and awareness of facial deformity loaded correctly but some items from the facial aspects crossloaded in the social aspects of deformity domain. There were no floor and ceiling effects demonstrated in the OQLQ.

Conclusion: Within the limitations of our study, the preliminary result of this study showed that this instrument, OQLQ(Malay) may be considered to acceptably reliable and valid to evaluate the quality of life of pre-treatment orthognathic surgery patients.

Keywords: Malay, Translation, OQLQ, Validity, Orthognathic patients

O1-09 Influence of Personality Traits on Oral Health-Related Quality of Life of Malaysian Adolescents with Malocclusion

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Objectives: To assess the influence of personality traits on the oral health-related quality of life (OHRQoL) of Malaysian adolescents with malocclusion.

Methods: The sample comprised 255 adolescents (50.2% male) aged 15-16 years old studying in Form 4 in year 2016. Personality traits were assessed using the Big Five Inventory (BFI). Self-perceived malocclusion was assessed using the 10-point scale Aesthetic Component of the Index of Orthodontic Treatment Need (IOTN AC) and the OHRQoL was assessed using the Psychosocial Impact of Dental Aesthetics Questionnaire (PIDAQ). Their relationship was evaluated using Multivariate Analysis of Covariance (MANCOVA) with self-perceived IOTN AC as covariate.

Results: There was a significant association between Extraversion personality trait and OHRQoL ($p < 0.05$) when self-perceived malocclusion was controlled. However, there was no direct relationship between Extraversion and any domain of the PIDAQ. Those disinclined for Neuroticism were associated with better Dental Self Confidence (DSC) than those inclined for Neuroticism ($p < 0.05$).

Conclusions: Extraversion personality trait was associated with overall OHRQoL. The dental self-confidence of adolescents was inversely associated with personality trait Neuroticism.

Keywords: Personality; Malocclusion; Neuroticism; Extraversion; Aesthetics, Dental; Orthodontics

O2-01 Comparison of Tooth Eruption, Alignment, Incisal level, and Bone Continuity Following Alveolar Bone Grafting (ABG) Between Two Different Surgical Timings

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Objectives: To compare the status of tooth eruption, alignment, incisal level, and bone continuity at the cleft side between two different surgical timings.

Methods: CBCT images of unilateral complete cleft lip and palate patients who had alveolar bone grafts were reviewed. Patients were divided into two groups based on time of grafting, Group 1 (6-8 years old) and Group 2 (9-11 years old).

Results: A total of 16 patients were recruited with 8 patients in each group; age ranging from 12 to 22 years old. Almost all maxillary canines on the cleft side in both groups have made positive progress in eruption. Only 25% of maxillary central incisors on the cleft side, in both groups, were straight. The majority of the maxillary central incisors in both groups are on the occlusal plane, 37.5% in Group 2 failed to reach the occlusal plane. Surprisingly, Group 2 has a better bone continuity compared to Group 1.

Conclusion: There were no striking differences in the dental and bony outcomes between the two groups.

Keywords: alveolar bone graft, cleft lip and palate, tooth eruption, incisal level, tooth alignment, bone continuity.

O2-02 Survival Outcomes of the Oral Squamous Cell Carcinoma Patients Treated in University of Malaya in a 10-Year Period (2002-2012)

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Background: Oral cancers possess potentially devastating impact globally and ranked as 21st most common cancer in Malaysia. This retrospective study was aimed to determine the survival outcomes for oral squamous cell carcinoma (OSCC) patients who received treatment or follow-up in University of Malaya in a ten-year period (2002 to 2012).

Methods: One hundred and nine OSCC patients who had undergone treatment or follow-up in Faculty of Dentistry, University of Malaya in the 10-year period were retrospectively analyzed for their socio-demography, clinico-pathology data and treatment undergone. Kaplan-Meier and Log Rank test were used to determine survival outcomes. Univariate and multivariate Cox regression models were used to calculate hazard rate ratios (HRR) for factors associated with patient survival.

Results: Highest incidence occurred among Indian population, with commonest site at buccal mucosa due to betel quid chewing ($p=0.000$). Presence of skip metastasis and extracapsular spread showed poor survival outcome ($p= 0.000$). Tumor site at gingiva showed poor survival outcomes ($p= 0.0494$). Early clinical and pathological staging showed better survival outcomes ($p = 0.0193$ and 0.0334). Patients who received treatment showed better survival outcomes ($p=0.0443$), particularly those who had undergone surgery ($p = 0.0235$)

Conclusions: Early diagnosis of disease improved overall survival of the patients, in concomitant with absence of extracapsular spread and skip metastasis. Skip metastasis was an independent prognostic factor on survival outcome of OSCC patients. Patients receiving treatment, specifically surgery exhibited enhanced overall survival.

Keywords: Oral Cancer, Oral Squamous Cell Carcinoma, Survival outcomes, Sociodemographic characteristics, Clinicopathological characteristics, treatment modality

O2-03 The Effects of Orthognathic Surgery on Patients' Pharyngeal Airway and the Development of Obstructive Sleep Apnea Post-surgery

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Objectives: The purpose of this study is to see the effects of different types of orthognathic surgery on patients' pharyngeal airway space (PAS) and to evaluate patients' sleep quality after surgery concerning obstructive sleep apnea (OSA).

Materials and Methods: This retrospective study evaluates lateral cephalograms of 29 patients, who underwent orthognathic surgery. The subjects were divided into 2 groups: group 1 underwent bimaxillary surgery and group 2 underwent mandibular setback surgery. The PAS was evaluated by measuring nasopharynx, oropharynx and hypopharynx on lateral cephalograms at T₀ and T₁, traced by 2 operators, twice at one month interval. Measurements were measured using J-image software. Phone interviews were conducted or questionnaires were sent via Whatsapp or email to assess patients' breathing, sleep quality and the development of OSA.

Results: In both groups, changes in PAS were observed in the immediate post-operative period. After bimaxillary surgery, a significant increase of PAS seen at the level of nasopharynx and significant decrease of PAS at the levels of upper oropharynx and lower oropharynx. For mandibular setback surgery, a significant decrease in PAS seen at upper oropharynx level and a significant increase at the hypopharynx level. In terms of snoring problems, only 2 patients, one from each group, claimed to have developed snoring problems with severity similar to that before surgery. None of the patients showed signs and symptoms of OSA before and after surgery.

Conclusion: Bimaxillary surgery results in a lesser PAS reduction compared to mandibular setback alone. Mandibular setback is well known to cause PAS constriction and carries the risk of developing OSA.

Keywords: Orthognathic Surgery; Effects; Lateral Cephalograms; Pharyngeal Airway Space; Sleep quality; Snoring Habits; Obstructive Sleep Apnea.

O2-04 An Audit on Mandibular Fracture in Faculty of Dentistry, University Malaya from 2010-2016

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Objective: To determine the epidemiology, etiology, pattern, management and post-operative complication of mandibular fracture.

Methods: The records of 117 patients diagnosed with mandibular fracture from August 2010 to March 2016 were reviewed. Data regarding age, gender, etiology, site of fracture, treatment modalities for the fractures and post-operative complication were recorded and analyzed using Microsoft Excel software.

Results: The ratio of male to female is 8:1. The peak incidence rate is occurring in 21- 41 years of age group. Road traffic accidents (70.9%) were the main etiology, followed by falls (14.5%), assaults (11.1%), sport injuries (1.7%), and industrial accident (1.7%). Fractures of parasymphysis were the common site involved followed by the condylar, body of mandible, and angle of mandible. Depending on the site of fracture, closed reduction (intermaxillary fixation (IMF) & mouth exercise) and open reduction internal fixation (ORIF) were both reliable treatment modalities in treating patients with mandibular fracture. There was no significant association between the type of treatment used and postoperative complications (P=0.89).

Conclusion: The incidence of mandibular fractures was more prevalent in males and second decade of life. Road traffic accidents are the leading cause of mandibular fracture. The most common site of fracture is parasymphysis. Surgical manipulation of fracture was the most common treatment that has been carried out. The postoperative complication is not related to the type of treatment used.

Keywords: Mandibular fracture, road traffic accidents, parasymphysis, ORIF

O2-05 Effects of *Ficus Deltoidea* on Cytotoxicity and Proliferation of Oral Cancer Cells In Vitro

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Background: Cancer has being studied over the past centuries and it has become one of the major diseases worldwide. Various treatments have developed but with undesired side effect. Natural compound may reduce the adverse effect. Lately, a few natural products are being used to treat cancer.

Methods: *Ficus deltoidea* was investigated for cytotoxic and apoptosis-inducing effects against four human oral cancer cell lines from different sites by using MTT assay, phase contrast microscopy, and fluorescence microscopy.

Results: *Ficus deltoidea* was cytotoxic in all cell lines and was most pronounced in H103 cells with an IC₅₀ value of 10.8 µg/ml. Furthermore, *Ficus deltoidea* was selective cytotoxic towards H103 cells, compared to normal cell line and it inhibited H103 cells proliferation in a time and dose-dependent manner. Finally, marked apoptotic morphological changes were observed in H103 cells treated with *Ficus deltoidea* under phase contrast and fluorescence microscopes.

Conclusion: *Ficus deltoidea* showing promising cytotoxicity effect against H103 oral cancer cell line via apoptosis cell death mode and the results obtained suggested that *Ficus deltoidea* has the potential to be developed as an anticancer agent.

Keywords: *Ficus deltoidea*, oral cancer cell line, H103, fluorescence microscopy, apoptosis, cell proliferation

O2-06 Assessment Of Dental Service Provided By Undergraduate Dental Students In Faculty Of Dentistry, University Of Malaya

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Objective: To assess patient experiences with dental service provided by undergraduate dental students in Faculty of Dentistry, University of Malaya.

Methods: A cross sectional study was done by distributing a self-answered questionnaire to patients treated by dental students. Patient level of satisfaction was assessed by using five Point Likert-like scales (strongly disagree, disagree, neutral, agree and strongly agree), with a list of items divided into three domains, consist of interpersonal skills, dental treatment and services.

Results: The response rate was 71.3% . The mean satisfaction scores were 83.09%, 78.62 and 74.16 for interpersonal skills, dental treatment and services domains respectively and the overall mean satisfaction score was highly satisfactory (78.62%). The percentage of satisfied patients was 82.4%, 66.2% and 55.4% for interpersonal skills, dental treatment and services domains respectively. There was significant association between satisfaction score with age (p -value= <0.001), treatment received by examination and diagnosis (p -value=0.027), denture treatment (p -value=0.032), others treatment (p -value=0.043) and 'year of study' of the students (p -value=0.001).

Conclusion: Patients were satisfied with their overall experiences with dental care provided by dental students. They were highly satisfied with the students' interpersonal skills, dental treatment received and services provided at the undergraduate dental clinics.

Keywords: patient experience; satisfaction; dental care; dental students; dental treatment ; dental services.

O2-07 The Use of Robotic Arm In Dentistry: A Possibility?

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Objectives: To observe the effectiveness of robotic arm in comparison to the conventional means in producing functional movements with respect to precision, safety, predictability and procedural time

Materials and method: This is an experimental pilot study that is divided into two branches involving robotic arm and conventional (manual) method in handling different procedures in dentistry. Students involved in this study are randomly chosen and they volunteered to participate on their own free will. The procedures involved were mixing of Plaster of Paris, mixing of acrylic and incision of a banana peel. In each respective procedure, 10 product samples were produced for both conventional and robotic arm manipulation. In all events, we compared the precision, safety, predictability and the time taken to complete the procedure handled by the robotic arm and conventional method.

Results: The handling of robotic arm increases safety and provides predictability. However, it carries lower precision of procedural outcome and takes a longer time to complete the experiments compared to manual technique.

Conclusion: Robotic arm is effective in producing functional movements with respect to precision, safety, and predictability. However, it has a slight increase of procedural time compared to conventional means.

Keywords: Robotic, dentistry, robotic dentistry.

O2-08 Management of Odontogenic Infection in Paediatric Patients: A Retrospective Study

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Objectives: The purpose of this study was to investigate the outpatient and inpatient management of odontogenic infections among paediatric patients in Faculty of Dentistry, Universiti Malaya.

Methods: A retrospective study (2013-2015) was carried out which involved retrieving past records (manual/electronic form) of paediatric patients (under 18 years old) who presented with odontogenic infection from various sources to obtain relevant data. Data collected was organized using descriptive statistics with SPSS version 12.0.1.

Results: Our study found that demographically odontogenic infections were more common in females (52.9%), Malays (47.1%) and preschool children (58.2%). The most cases were seen in 2014 and maximum number of cases/month was 12. Common presentations were pain (62.1%), intraoral swelling (37.9%) and pus discharge (67.3%) with higher involvement of right primary molars. Most patients had no prior visit for the complaint (79.7%), 86% of those who took medications prior had taken antibiotics and only 4 were immunocompromised. Dental Panoramic Tomograph was the most common radiographic investigation done. Outpatients were managed chairside with pulpal opening (46.1%), 7% underwent extraction under general anaesthesia in daycare setting and 50% received follow up. Inpatients were admitted for 3 days on average. Most commonly, definitive care was extraction under local/general anaesthesia (68%); 21.1% of outpatients and 60% of inpatients were prescribed antibiotics.

Conclusion: Overall, treatment and medications prescribed adhered to current guidelines but about 35% of outpatients were given antibiotics without any other surgical interventions.

Keywords: Abscess, Drainage, Infection, Anti-Bacterial Agents, Paediatrics, Cellulitis

O2-09 Maxillofacial Trauma of Paediatric Patients: University of Malaya Experience

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Objective: To determine the incidence, type of injury, management and the outcomes of the treatment of maxillofacial trauma among paediatric patients treated in the Faculty of Dentistry, University of Malaya.

Methods: Patients' case records were retrieved from the Department of Oral & Maxillofacial Clinical Sciences' database. All data including age, gender, cause of injury, type of injury, treatment delivered, and outcome at 1 month, 3 months, 6 months and 1 year post-operative were retrieved from Dental Information System (DEISY) and patients' folders. All data was recorded using a proforma specifically created for this study and analysed descriptively.

Results: The total number of patients was 120 but only 93 had complete records. The ratio of boys to girls was 2:1. The main cause of injury was falling (54%) followed by motor-vehicle accident (MVA) (42%), assault (3%), and sport (1%). The total count of soft tissue injury only was about 41% while 59% presented with maxillofacial fracture. Midface fractures were the most common fracture occurred in children followed by mandibular fractures. Both fractures were mostly managed by open reduction and internal fixation using non-resorbable prostheses. This is excepting condylar fractures which were mostly managed conservatively.

Conclusion: The incidence of maxillofacial trauma in children increased within the time frame of this study. The type of injury seen and management rendered in University of Malaya were comparable to other treating centres. All patients had achieved reasonable outcomes and managed to regain their form and function postoperatively.

Keywords: trauma, maxillofacial, oral, paediatric, fracture, treatment