



MAHSA
UNIVERSITY



MI-DENT 2024

MAHSA International Dentistry Conference

Mi-DENT ~ *Emerging Trends in Oral Health Sciences* ~



**PROGRAMME
BOOK**



26 & 27 April 2024 (Friday & Saturday)



MAHSA University, Bandar Saujana Putra

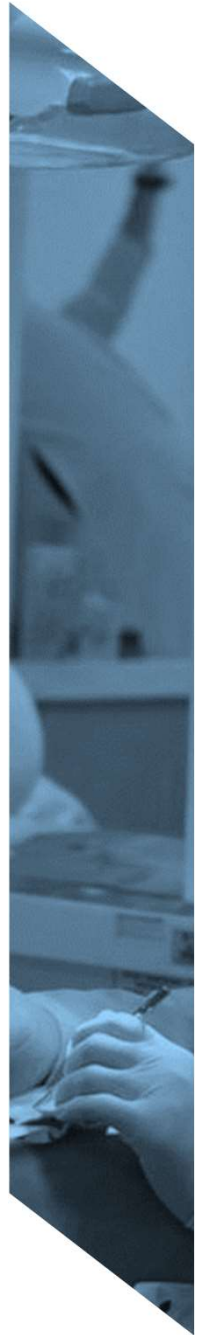
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Prof. Dato' Dr. Ikram Shah Bin Ismail

VICE CHANCELOR, MAHSA University



It is with great pleasure that I extend my warmest welcome to each of you to the the MAHSA International Dental Conference (MI-DENT) 2024.

As Vice Chancellor, I am immensely proud to host such a prestigious gathering of dental undergraduate and postgraduate students, dental professionals, researchers, educators, and innovators from around the globe. This conference serves as a beacon of knowledge exchange, collaboration, and advancement in the field of dentistry.

The MI-DENT Conference is an annual event organized by Faculty of Dentistry and serves as a platform for all the dental undergraduates to come together and share knowledge mainly through the presentation of their research papers.

This year in addition to oral and poster research presentations, we have local and overseas postgraduates presenting their clinical cases and sharing their good clinical practice. Several other activities such as Quiz, Table clinic, 2-minute video competitions have been planned to engage the students in a spirit of friendly competition.

In an era where we strive to provide excellent care for the community, it is pertinent to ensure that the students receive the best quality education, one which is current, and evidence based. It is also important to cultivate them to be lifelong learners. This can be achieved through the quest for new knowledge in pursuing answers towards meeting the healthcare needs of their patients.

Throughout our time together, we will have the opportunity to delve into the latest breakthroughs, engage in thought-provoking discussions, and forge invaluable connections that will shape the future of dental healthcare.

I encourage you to fully immerse yourselves in the diverse array of presentations, keynote lectures from local and overseas speakers and networking sessions meticulously crafted to enrich your experience and expand your horizons.

Together, let us embark on this journey of discovery, innovation, and excellence, united in our shared commitment to advancing the science and practice of dentistry for the betterment of patient care and global oral health.

Once again, a heartfelt welcome to all attendees. May our time together be enriching, inspiring, and impactful.

I wish the MI-DENT 2024 Conference to be an overwhelming success.



Prof. Dato' Dr. Mohamed Ibrahim Bin Abu Hassan

DEAN, Faculty of Dentistry MAHSA University

A warm welcome to all of you to the MAHSA International Dentistry Conference (MI-DENT) 2024, organized by the Faculty of Dentistry at MAHSA University. This year MI-DENT 2024DES will be organized together with our students' conference, where MAHSA undergraduate Year 5 dental students come together to showcase their research and projects, exchange knowledge and ideas, and foster meaningful interactions with their peers. I am also happy to see several overseas participants joining the conference as this will certainly elevate the status of the conference to the true international meetings.

I want to express my sincerest appreciation to Dr. Nurul Huda Hasan, Prof. Dr. Daz Abraham and Dr. Allen Teh Bang Cheng for graciously lending their time and expertise to enlighten us with their perspectives. Your invaluable contributions have not only elevated the caliber of this conference but have also left an indelible mark on all who have had the privilege to hear you speak. Together, we aim to promote the theme of "Emerging Themes in Oral Health Science," inspiring future dental professionals to embrace innovation, explore new possibilities, and drive advancements in dental care.

The MI-DENT serves as a platform to nurture lifelong commitments to scientific exploration and excellence in dentistry. By encouraging the sharing of research findings and promoting intellectual discussions, this event paves the way for scientific advancements and transformative breakthroughs in oral health.

I would like to express my deepest appreciation to the organizing committee led by Assoc. Prof Prathap Manivannan for their unwavering support and tireless efforts in making the MI-DENT 2024 a remarkable success. Their dedication and commitment are integral to the realization of this meaningful event. Thank you also to all contributors to this conference which had made our organizing easier to implement the conference.

To all the participants, I wish you an enjoyable and fruitful MI-DENT 2024. May this colloquium ignite your passion for research, expand your horizons, and empower you to make a lasting impact in the field of dentistry. I look forward to witnessing the exchange of knowledge, the presentation of innovative ideas, and the fostering of invaluable connections among all attendees.



Assoc. Prof. Dr. Prathap Chandar Manivannan

ORGANIZING CHAIR MI-DENT 2024

It is my pleasure to extend a warm welcome to you all to the MAHSA International Dental Conference (MI-DENT) 2024. As the organizing chair, I am thrilled to present this compilation of cutting-edge research, innovative studies, and insightful findings from emerging talents in the field of dentistry.

This Programme book serves as a testament to the wealth of knowledge and expertise present within our community. Within its pages, you will find a diverse array of topics covering every aspect of dental science and practice, from basic research to clinical applications and beyond. Each abstract represents countless hours of dedication, hard work, and passion invested by our contributors.

As we navigate the ever-evolving landscape of dental healthcare, the importance of research and innovation cannot be overstated. It is through the dissemination of knowledge and the exchange of ideas that we can drive progress and shape the future of our profession. This abstract book is a testament to our collective commitment to advancing dental science and improving patient care.

To all the participants of the MI-DENT Conference, I encourage you to explore the abstracts contained within this book, engage in discussions, and forge connections with your peers. Together, let us harness the power of collaboration to drive innovation and excellence in dental research and practice.

Once again, I welcome you all to the MAHSA International Dental Conference (MI-DENT) 2024. May it serve as a source of inspiration and knowledge for years to come.

THE ORGANIZING COMMITTEE



Chair	AP Dr Prathap Chandar Manivannan
Co-Chair	AP Dr Santhosh Kotian
Advisor	Prof Dato Dr Mohamed Ibrahim Bin Abu Hassan
Organizing Secretary	Dr Geetha A/P Nalairndran
Scientific Committee	Pn Nurul Jannah binti Nor Azmi, AP Ts Dr Liew Fong Fong, Dr Nurul Diana, AP Dr Ravikanth Haridas Jujare, Dr Akarsha Singh Multani, Dr Laxmi Tejaswin Polepalle, Dr Nilofer Nisha
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Support Team	Ms. Nooraida binti Ahmad, Pn Nur Lia binti Zainan, Pn Nurul Bahiah binti Aris, En Muhammad Asyraff Bin Ahmad, En Zil Azam Mohd Nor
Table Clinic	AP Dr Deepak Pateel, Dr Ang Yee and Dr Lim Zhi Wei
Quiz	Prof Dr Mohan Alexander and Dr Ooi Der Jiun
2-Minute Video Competition	Dr Sai Prannoy Nagella

Time	Activities
9.00 am-10.00 am	Session 1: Clinical Case Presentation
10.00 am-10.15 am	Opening Ceremony
10.15 am-10.30 am	Tea Break
10.30 am-11.30 am	Keynote Lecture 1 Dr. Nurul Huda Hasan BDS, MSc <i>Chief Academic Officer, The Dental City</i> Topic: Tooth Proportions and Its Implications in Aesthetic Restorative Treatment
11.30 am-12.30 pm	Keynote Lecture 2 Professor Dr. Dax Abraham BDS, MDS <i>Head of Department, Conservative Dentistry and Endodontics, Manav Rachna Dental College, India</i> Topic: Clinical Diagnosis to Molecular Diagnosis – A Paradigm Shift
12.30 pm – 2:30 pm	Lunch Break
2.30 pm-2.45 pm	Guest Talk Dr. How Zhuo Yuan Topic: An Overview of VOCO
2.45 pm-4.15 pm	Session 2: Online Clinical Case Presentation
<i>Concurrent Session</i>	Table Clinic Competition <i>(Level 2, Humanity, H-2-10)</i>
4.15pm-4.30pm	Tea Break
4.30pm-5.30pm	Session 3: Clinical Case Presentation

Time	Activities
9.00am-10.00am	Session 1: Oral Presentation
<i>Concurrent Session</i>	Session 1: Poster Presentation
10.00am-10.30am	Tea Break
10.30am-11.30am	Keynote Lecture 1 Dr. Allen The Bang Cheng DDS (MAHSA) <i>Founder & CEO of SEPA Dental Group</i> <i>Founder of Dental Circle & Dental Student Circle</i> Topic: Changing The Game: How To Thrive in a Challenging Dental Economy
11.30am-1.00pm	Session 2: Oral Presentation
<i>Concurrent Session</i>	Session 2: Poster Presentation
1:00pm – 2:00pm	Lunch Break
2.00pm-2.15pm	Guest Talk Dr. Yuan-Kai Lu Topic: Essentials of Ti-Ho Dental Implant System
2.15pm-3.30pm	Quiz Mania – A Battle of Dental Minds
3.30pm-4.00pm	Tea Break
4.00pm-5.00pm	Closing Ceremony & Prize Distribution



Dr. Nurul Huda Hasan BDS, MSc

Chief Academic Officer, The Dental City

Topic : Tooth Proportions and Its Implications in Aesthetic Restorative Treatment

Dr. Nurul Huda Hasan earned her BDS degree in 2004, followed by Comprehensive Certification Licensing in Implantology and an MSc in Aesthetic Dentistry. She served as the former President of the Malaysian Association of Aesthetic Dentistry and is currently the President Elect of the Asian Academy of Aesthetic Dentistry. She now holds the position of Chief Academic Officer at The Dental City while continuing her clinical practice at established private practices in Kuala Lumpur.

Synopsis of Lecture:

In this lecture, Dr. Nurul will delve into the fascinating world of dental aesthetics and clinical decision-making pertaining to tooth proportions and the usage of this knowledge into providing an enhanced composite restoration. The participants will gain insights into how precise clinical judgment can lead to more successful outcomes in dental care and how to equip with the knowledge and insights needed to make informed clinical decisions.



Prof. Dr. Dax Abraham BDS, MDS

Head of Department, Conservative Dentistry and Endodontics
Manav Rachna Dental College, India

Topic : Clinical Diagnosis to Molecular Diagnosis – A Paradigm Shift

Prof. Dr. Dax Abraham holds a master's degree in the field of Conservative Dentistry and Endodontics from Rajiv Gandhi University, Bangalore. With over 17 years of dedicated teaching experience, he is currently pursuing his Ph.D. degree in the same specialization at MRIIRS. He has authored more than 35 publications in esteemed peer-reviewed journals and presenting at conferences. His forte is clinical work, especially in magnification and retreatment endodontics.

Synopsis of Lecture:

Diagnosis of the correct state of pulpal and periapical condition of the teeth still poses a huge dilemma for clinicians worldwide. In this lecture, Professor Dr. Dax Abraham will discuss groundbreaking research that illuminates the potential of deploying a thoroughly investigated biomarker for the diagnosis of pulpal diseases. This study offers promising insights into advancing diagnostic accuracy in endodontics.



Dr. Allen Teh Bang Cheng DDS (MAHSA)

Founder & CEO of SEPA Dental Group
Founder of Dental Circle & Dental Student Circle

Topic : Changing The Game : How To Thrive in a Challenging Dental Economy

Dr. Allen, founder of SEPA Dental Group and Dental Circle, is committed to changing public perception and alleviating fears associated with dentistry. His dedication has led to recognition in the Malaysian Book of Records for opening the most dental clinics in a day. Additionally, he has been honored with the G Forty Top 40 award, highlighting his significant influence and impact as a young entrepreneur.

Synopsis of Lecture:

In this insightful lecture, Dr. Allen will delve into essential topics, offering strategies to create an exceptional patient experience that sets your practice apart. He will explore the art of building and nurturing a high-performing dental team, share practical approaches to boost clinic productivity, and discuss the fundamentals of establishing a strong brand and implementing effective marketing strategies.

GUEST TALKS

Dr. Yuan-Kai Lu DDS, MHA, PhD

Founder, Ti-Ho Implant Company



Graduating with a Doctor of Dental Surgery degree from Taipei Medical University between 1977 and 1983, Dr. Yuan-Kai Lu's journey in dentistry is a testament to his unwavering commitment to excellence and lifelong learning.

Recognizing the importance of staying abreast of the latest advancements in the field, Dr. Lu embarked on his academic pursuit at Boston University, where he specialized and graduated in 1990. Dr. Lu pursued advanced implant training at Harvard University in 1995.

In his quest for continuous improvement, Dr. Lu furthered his education by obtaining a Master of Health Administration from Saint Louis University in 1996. From year 2000 ~ 2006, Dr. Lu solidified his academic credentials with a PhD from SiChuan University Medical School.

Driven by his passion for improving patient outcomes and enhancing quality of life, Dr. Lu founded Ti-Ho Implant company in 2007 with a bold vision to revolutionize dental implant technology. Under his visionary leadership, Ti-Ho Implant has emerged as a leader in implant innovation in Taiwan, offering cutting-edge solutions characterized by safety, efficiency, and a high success rate, as well as prioritizing patient satisfaction.

Dr. How Zhuo Yuan BDS, MFDS RCSEd

Private General Dental Practitioner, Maxcare Platinum Dental



Graduated from Rajiv Gandhi University of Health Sciences (India) in 2014, Dr. How Zhuo Yuan then obtained her Membership of Royal college of Surgeons of Edinburgh (MFDS RCSEd) in 2017.

She is now a private general dental practitioner in Maxcare Platinum Dental in Petaling Jaya. She enjoys practising aesthetic dentistry, orthodontics and endodontics in her practice.

She will deliver a guest talk on VOCO which offers branded products in the fields of preventative, restorative and prosthetic dentistry well renowned both in Germany and abroad, often leading the way in the respective fields thanks to their innovative approaches and solutions.

CLINICAL CASE PRESENTATIONS

SESSION 1 (9 am-10 am) & Session 3 (4.30 pm-5.30 pm)

NO.	NAMES	TITLE OF PRESENTATION
P1	RASHIKA SINGHANIA	TRAUMATIC FIBROMA EXCISION USING DIODE LASER- A CASE REPORT
P2	LAKSHMI PRASADH N	FUNCTIONAL HINGE LOCK LINGUAL ARCH SPACE MAINTAINER – A NOVEL BILATERAL SPACE MAINTAINER MODIFICATION
P3	THARANI T	FRENECTOMY IN A CLEFT PATIENT THROUGH LASER- A CASE REPORT
P4	LIM CHIEN WEN	MULTIDISCIPLINARY APPROACH FOR RESTORING FUNCTION AND AESTHETICS
P5	SAUMYA VERMA	APPLICATION OF PRF AND AMNIOTIC MEMBRANE IN ENDODONTIC SURGERY FOR HEALING OF PERIAPICAL LESION: A CASE REPORT
P6	TWINKLE CHAWLA	FULL MOUTH REHABILITATION IN EARLY CHILDHOOD CARIES- A CASE REPORT
P7	SERENA LALFAKAWMI	INTENTIONAL REPLANTATION FOR THE REMOVAL OF A SEPARATED ENDODONTIC INSTRUMENT IN A MANDIBULAR FIRST MOLAR
P8	TONI LEGO	MULTIDISCIPLINARY MANAGEMENT OF CLEFT ALVEOLUS
P9	WONG HONG ZHANG	GINGIVAL ENLARGEMENT DURING ORTHODONTIC THERAPY AND ITS MANAGEMENT

ONLINE CLINICAL CASE PRESENTATIONS

SESSION 2 (2.45 pm-4.15 pm)

NO.	NAMES	TITLE OF PRESENTATION
V1	POOJA SINGH	FROM BROKEN TO BEAUTIFUL: A CASE REPORT ON MANAGEMENT OF MUCORMYCOSIS WITH PATIENT SPECIFIC IMPLANTS
V2	KODALI SRIJA	REVOLUTIONIZING SINGLE TOOTH EXTRACTION RECOVERY: UTILIZING ADVANCED BIO-SCAFFOLD MATERIALS - A CASE STUDY
V3	AYESHA FATIMA	MODIFIED HALTERMAN APPLIANCE- A KEY TO ALTER ABNORMAL PATH OF ERUPTION
V4	MAMILLA SAI GEETA	INTEGRATED TREATMENT STRATEGIES TO PRESERVE TRAUMATICALLY INJURED YOUNG PERMANENT TEETH: A MULTIDISCIPLINARY APPROACH
V5	VYSHNAVI NAMBURU	BITE BACK : CONQUERING MIH
V6	ZEBA KAUNAIN	CLEIDOCRANIAL DYSPLASIA IN CHILDREN. – A RARE SYNDROME.
V7	ANJALI BATRA	ENHANCING SMILES WITH PRECISION
V8	KHYATI RAGHAV	“IMPACTION TO TRACTION”

P1

Traumatic Fibroma Excision using Diode Laser- A Case Report

Authors: Rashika Singhania, Avantika Tuli

Affiliations: Department of Pediatric Dentistry, Manav Rachna Dental College, Faridabad, India

Background: Traumatic or irritational fibroma is a prevalent benign protruding lesion in the mouth that emerges as a reaction to injury. This fibroma stems from a prolonged healing process involving the development of granulation tissue and scarring, leading to the formation of a fibrous mass beneath the mucous membrane. Instances of recurrence are uncommon and are often associated with repeated trauma to the same area. Complete excision is recommended to deter any potential recurrence. The presented case report focuses on a 12 year old female child diagnosed with deep dental caries with respect to 16 and 46 and Traumatic Fibroma with respect to the tip of the tongue. The lesion was excised surgically to remove the fibrous submucosal mass completely with the aim of preventing recurrence and the carious tooth was treated with root canal therapy.

Treatment Procedure: Root canal treatment followed by stainless steel crown with respect to 16 and 46. Fibroma excision using diode laser.

Outcomes: Using laser resulted in painless and no bleed procedure compared to the traditional method.

Keywords: Root canal treatment, Fibroma, Laser

P2

Functional Hinge Lock Lingual Arch Space Maintainer – A Novel Bilateral Space Maintainer Modification

Authors: Lakshmi Prasad N, Tanu Nangia

Affiliations: Manav Rachna Dental College, Faridabad, India

Background: A conventional space maintainer though does its objective of maintaining the arch length, it's nonfunctional. To overcome this limitation, functional space maintainers are designed. Still the extended limitations of oral hygiene maintenance, food lodgement, visibility of erupting permanent teeth are surfaced. In this case presented in a male child of 7-year-old, it was diagnosed as; Premature loss of 74, Grossly decayed 75,85, Root Stumps of 84, Smooth surface caries of 52,63. The objective of treatment plan is to overcome the existing limitations of conventional and functional lingual arch space maintainer and design a new modification of the same.

Treatment Procedure:

- Extraction of Root stumps and grossly decayed followed by a Novel modified Lingual arch space maintainer
- Strip Crown with relation to 52
- Composite Restoration with relation to 63.

Outcomes: The novel design of functional hinge lock space maintainer eliminated the existing limitations in design and functions of lingual arch space maintainer.

Keywords: Lingual arch, Space Maintainer, Functional, Modification, Hinge – Lock

Authors: Tharani T, Tanu Nangia

Affiliations: Manav Rachna Dental College, Faridabad, India

Background: A congenital developmental anomaly of the tongue characterized by a short, thick lingual frenulum resulting in limitation of tongue movement (partial ankyloglossia) or by the tongue appearing to be fused to the floor of the mouth (total ankyloglossia) also called as, Tongue Tie. The gold standard treatment modality for ankyloglossia is, Lingual frenectomy. The use of electrosurgery or laser technology has demonstrated a shorter operative working time, improved hemostasis, reduced intra- and postoperative pain and discomfort, fewer postoperative complications (e.g., swelling, infection), no need for suture placement, and increased patient acceptance. In this case being presented, the diagnosis was Type II Ankyloglossia along with Chronic Symptomatic Irreversible Pulpitis with relation to 54,75,84.

Treatment Procedure:

- Extraction of 54 followed by Band and Loop Space Maintainer
- Pulpectomy followed by Stainless Steel Crown -75,84
- Lingual Frenectomy

Outcomes: Release of tongue tie through laser enhances speech and mastication

Keywords: Pulpectomy, Space Maintainer, Frenectomy

Authors: Lim Chien Wen

Affiliations: MAHSA University, Malaysia

Background: The comprehensive oral rehabilitation of patients with compromised dental function and aesthetics often requires a multidisciplinary approach, posing a significant clinical challenge. Proper patient selection and meticulous interdisciplinary treatment planning, considering the patient's needs, reasons for seeking treatment, financial capability and socioeconomic background, significantly influence the predictability of successful restoration. A 50-year-old Chinese female presented with complaint of pain on upper left and right posterior regions persisting for nearly a year. She also requests to replace multiple posterior missing teeth and an old anterior fixed partial prosthesis.

Diagnosis: The diagnosis revealed partially edentulism in the maxillary arch (Kennedy's Class III modification II) and multiple endodontic issues.

Treatment Procedure: She had multiple teeth requiring endodontic treatment to eliminate the intracanal infection and periapical pathology, as well as replacing missing teeth on the maxillary arch. While determining the working length of tooth 16, a size 8 K-file broken in the mesio-buccal canal. However, it was successfully retrieved by exposing it using ultrasonic vibrations and remove with endodontic micro forceps. During the treatment, a sinus tract was noted on tooth 14 after 3 months of non-surgical retreatment, exploratory surgery was performed to investigate the possibility of crack under microscope. However, no crack line was detected after staining with methylene blue dye. Finally, fixed partial prosthesis was given to the patient to restore the missing teeth.

Outcomes: The patient is satisfied with the final restored occlusion as well as her appearance.

Keywords: Oral rehabilitation, multidisciplinary, endodontic, separated file retrieval, exploratory surgery

Application of PRF and Amniotic Membrane in Endodontic Surgery for Healing of Periapical Lesion: A Case Report

Authors: Saumya Verma,

Affiliations: Manav Rachna Dental College, Faridabad, India

Background: The utilisation of membrane barriers and bone grafting materials in endodontic surgery encourages healing through regeneration instead of scar tissue repair. The human amniotic membrane, valued for its regenerative and therapeutic properties, can facilitate ideal periapical rehabilitation and enhance healing following surgery. Platelet-rich fibrin (PRF), derived from the patient's blood, contains a concentrated source of growth factors and cytokines crucial for tissue repair and regeneration.

Diagnosis: Pulpal necrosis with symptomatic apical periodontitis.

Treatment Procedure: The present case report highlights the use of amniotic membrane and PRF in healing of periapical lesion of maxillary anterior region after failure of non-surgical treatment.

Outcomes: The 3 months follow-up shows effective periapical healing without any clinical sign and symptoms. This case is an interdisciplinary approach between the department of Endodontics and Oral surgery.

Keywords: amniotic membrane; endodontic regeneration; guided tissue regeneration; periapical surgery; platelet-rich fibrin

Full Mouth Rehabilitation in Early Childhood Caries- A Case Report

Authors: Twinkle Chawla, Avantika Tuli

Affiliations: Department of Pediatric Dentistry, Manav Rachna Dental College, Faridabad, India

Background: Early Childhood Caries (ECC) negatively impact infants' and children's oral health, leading to an overall decline in body well-being. The premature loss of primary anterior teeth not only affects chewing efficiency but also impacts aesthetics, and pronunciation, and encourages abnormal oral habits. Restoring extensively decayed deciduous teeth, particularly in uncooperative children, poses a significant challenge for dentists. The presented case report focuses on a 4-year-old patient diagnosed with Early Childhood Caries, highlighting a comprehensive approach to oral health rehabilitation. This includes caries prevention strategies, restorative and rehabilitative procedures, and special emphasis on modifying feeding habits and promoting effective oral hygiene.

Diagnosis: Severe Early Childhood Caries And Dental Neglect

Treatment Procedure: Pulpectomy followed by stainless-steel crown wrt 74,75,84,85, Post & Core wrt 63, Extraction followed by Groper's appliance wrt 51,52,54,61,62,64.

Outcomes: Early childhood caries in an anterior tooth can cause psychological distress in young children. The use of an appliance not only restores aesthetics but also provides a crucial psychological boost for the child and parents. This functional space maintainer not only enhances facial aesthetics but also aids in proper speech development and prevents the emergence of oral habits. Beyond dental benefits, oral rehabilitation contributes significantly to the overall well-being, both physically and psychologically, as highlighted in this case report.

Keywords: Complete mouth rehabilitation; Early Childhood Caries; Esthetic Management

Intentional Replantation for the Removal of a Separated Endodontic Instrument in a Mandibular First Molar

Authors: Serena Lalfakawmi

Affiliations: Manav Rachna Dental College, Faridabad, India

Background: Many complications can arise with endodontic procedures. One frequent consequence of improper or excessive usage of the endodontic instrument is the separation of the instrument which may hinder the cleaning and shaping of the canals and affect the prognosis of the tooth. As a result, its removal from inside the root canal is required to manage this complication. Intentional replantation is one possible therapeutic option if the separated endodontic instrument is extruded beyond the root apex. Using this method, the tooth is extracted to remove the separated instrument and then replanted back in its original location.

Diagnosis: Endodontic mishap

Treatment Procedure: In this case report, intentional replantation was used for the retrieval of a separated instrument in a mandibular first molar to avoid future complications. This case is an interdisciplinary approach between the Department of Conservative Dentistry and Endodontics and the Department of Oral and Maxillofacial Surgery.

Outcomes: The one-year follow-up shows no clinical and radiographical signs and symptoms of periapical disease. This case is an interdisciplinary approach between the Department of Conservative Dentistry and Endodontics and the Department of Oral and Maxillofacial Surgery.

Keywords: *intentional replantation, separated instrument, instrument retrieval, endodontic mishaps*

Multidisciplinary Management Of Cleft Alveolus

Authors: Toni Lego , Ashish Kumar Singh

Affiliations: Manav Rachna Dental College, Faridabad, India

Background: Cleft lip and palate is a common congenital birth defect with varying incidences across different racial groups. The condition often presents challenges in dental alignment and occlusion. This case report presents a 19-year-old female patient with cleft alveolus, partially erupted 11,12 and supernumerary tooth, spacing in the upper front teeth, anterior open bite and edge-to-edge bite. The treatment objectives included closing the anterior bite, achieving ideal overjet and overbite, and aligning tooth 12 within the dental arch while extracting 11 and the supernumerary tooth. This case report elicits the importance of a comprehensive treatment plan to address the specific dental anomalies associated with cleft lip and palate, aiming to optimize functional and aesthetic outcomes for the patient.

Treatment Procedure:

- Extraction of 51, 11 and 41
- Maintenance of space i.r.t 11
- Orthodontic traction for partially erupted 12 to induce bone formation in the area of defect
- Use of open coil spring to gain space for rehabilitation of 11 with prosthesis
- Space closure in the mandibular arch.

Outcomes: The patient was treated using fixed orthodontic appliance for orthodontic traction to induce bone formation in the region of 11, in preparation for prosthetic rehabilitation. Subsequently, a Maryland bridge was delivered in the region of 11. At the end of the treatment, significant aesthetic improvements were achieved for the patient, with stable results obtained.

Keywords: *Cleft lip and palate, Orthodontics, Prosthetics rehabilitation*

Gingival Enlargement during Orthodontic Therapy and its Management

Authors: Wong Hong Zhang

Affiliations: MAHSA University, Malaysia

Background: Oral hygiene care is pivotal to the oral health, especially when a patient is having fixed orthodontic treatment. The presence of orthodontic brackets and wire obstructs the ability of oral hygiene self-maintenance. Plaque-induced gingival enlargement and periodontitis may occur in cases of poor oral hygiene. This case report presents management of a young adult diagnosed with gingival enlargement and localized periodontitis during his orthodontic therapy.

Treatment Procedure: A 21 years old systemically healthy, male patient that is undergoing orthodontic treatment presented to the Periodontology Department with the chief complaint of progressive, asymptomatic gum swelling on his lower front teeth since 8 months. After diagnosis of plaque-induced gingival enlargement and localized periodontitis, the orthodontic treatment was paused and the patient underwent non-surgical periodontal therapy. After completion of initial treatment and reinforcement of oral hygiene, gingivoplasty was performed to facilitate cleaning of the affected site. The patient then continued with supportive periodontal therapy before resuming fixed orthodontic treatment and is continuing with supportive care.

Conclusion: Gingival enlargement and periodontitis may occur in young adult patients undergoing fixed orthodontic treatment, and should be managed non-surgically prior to further surgical management of the gingival enlargement if indicated. These patients may require close monitoring of the periodontal health during and after orthodontic therapy.

Clinical Significance: Plaque-induced gingival enlargement and periodontitis, which may occur in impaired oral care conditions during orthodontic treatment, should be first managed non-surgically prior to surgical therapy and monitored with supportive periodontal therapy.

Keywords: *periodontitis; gingival enlargement; gingivoplasty; orthodontic therapy; supportive periodontal therapy.*

V1

From Broken to Beautiful: A Case Report on Management of Mucormycosis with Patient Specific Implants

Authors: Pooja Singh

Affiliations: *Saveetha Dental College and Hospitals (SIMATS), Chennai, India*

Background: A 54-year Male patient reported to the clinic with the chief complaint of multiple mobile teeth in the upper left back region of the jaw. On intraoral examination, all teeth in the left posterior region were mobile with an oroantral communication and defect in the palate crossing the midline (ARMANY class IV).

Diagnosis: On clinical and radiographical examination, the diagnosis of Mucormycosis was made which was confirmed with histopathological analysis.

Treatment: The treatment was decided in 3 stages. Stage 1 was the surgical phase involving resection of maxilla and closure of defect in the palate, Stage 2 was planning and placement of patient specific implants, Stage 3 comprised of rehabilitation with overdentures for appropriate functional and esthetic outcomes.

Outcomes: The combination of surgical and prosthetic approach helped in closing the oronasal communication and helped to reduce the hypernasality of the patient post insertion. Since removable prosthesis was given over the patient specific implants, hygiene maintenance was adequate. 6 months follow up showed improvement in chewing and esthetics of the patient.

Keywords: *Mucormycosis, patient specific implants, overdentures, Full mouth rehabilitation*

V2

Revolutionizing Single Tooth Extraction Recovery: Utilizing Advanced Bio-Scaffold Materials - A Case Study

Authors: Kodali Srija

Affiliations: *Sri Sai College Of Dental Surgery, India*

Background: Post extraction the natural bone structure in the extraction site often diminishes in size and undergoes morphological changes. Severe bone loss can even pose considerable challenges for successful implant placement. Socket and ridge preservation are emerging as innovative techniques to minimize the post extraction hard and soft tissue collapse. Materials such as Platelet Rich Fibrin (PRF) have demonstrated remarkable efficacy in enhancing osteogenic differentiation and expediting the healing process. It serves as a biological bridge between graft particles, fostering angiogenesis, attracting stem cells, and promoting the migration of osteoprogenitor cells toward the graft's center. Moreover, the PRF membrane itself can act as a protective cover for the grafted socket, particularly in cases where sutures alone might not suffice for wound closure.

Treatment: Here we report a case of complicated crown-root fracture of 11 in a 12-year-old boy where fragment reattachment has been done after exposing the fracture site by a laser crown lengthening procedure. The tooth was treated endodontically and a prefabricated post has been cemented to reattach the fractured segments. Due to repeated trauma to the same region the boy reported back with dislodgement of the reattached fragment after 8 months. On clinical examination intraoral abscess was seen and radiographically external resorption was noticed predicting poor prognosis. So, root fragment was extracted.

Outcomes: In our case due to the child being 12 years old and considering the time required for implant placement, we prioritized the preservation of the socket using PRF. Subsequently, the prosthetic rehabilitation was tailored to restore 11.

Keywords: *Angiogenesis, Crown Root Fracture, PRF, Socket Preservation.*

Modified Halterman Appliance- A Key to Alter Abnormal Path of Eruption.

Authors: Ayesha Fatima

Affiliations: Sri Sai College Of Dental Surgery, India

Background: Ectopic eruption is a disturbance in the eruptive path of a tooth in an abnormal position. Its prevalence varies from 3-4% of permanent first molars in children and the maxillary arch is more commonly affected than the mandible. Several methods of treating ectopically erupting permanent first molars include Interproximal wedging and Distal tipping. Various types of removable and fixed molar distalization devices includes an elastomeric separator, brass wire, prefabricated clip separator, lip bumper, Humphrey appliance, Halterman appliance. Halterman Appliance is advantageous because of its ease of fabrication and less bulkiness. If required, it can be removed easily and re-cemented after the adjustments are made.

Treatment: The present case reports the management of ectopically erupting permanent mandibular first molar with a modified Halterman appliance. The present case report describes the management of an ectopically erupting mandibular first molar in a 9-year-old child with a modified Halterman appliance. Halterman appliance was modified by incorporating lingual arch anchorage. Follow-up was carried out at 1 month, 3 months, until distalization of the molar was achieved.

Outcomes: Distalization of molar was achieved within 1 month.

Conclusion: In the present case, early diagnosis of the ectopic eruption of the first permanent molar was achieved which aided in early interceptive orthodontic treatment to prevent further complications.

Keywords: Ectopic Eruption; Molar Distalization, Orthodontic Appliance, Permanent first molar.

Integrated Treatment Strategies to Preserve Traumatically Injured Young Permanent Teeth: A Multidisciplinary Approach

Authors: Mamilla Sai Geeta

Affiliations: Sri Sai College Of Dental Surgery, India

Background: Dental trauma occurs at any age, but it is more common in permanent dentition and to be seen more frequently in the first and second decades of life. The complicated crown-root fracture of a young permanent tooth is a rare traumatic dental injury comprising of 0.56% and 1.1% of all dental traumatic injuries that requires comprehensive treatment demanding both for the child and the dentist. **Material and Methods:** The present case reports a crown lengthening procedure to save a young permanent tooth that underwent damage and lost a significant amount of tooth structure. The present case report describes a 14-year-old girl with a complicated crown root fracture of maxillary premolar. One possible treatment option for the fractured tooth was crown lengthening procedure. The present case report provides a multidisciplinary approach for managing a traumatic young permanent tooth considering periodontal and restorative factors.

Treatment: A root canal procedure was done followed by crown lengthening to attain a proper gingival contour and crown root ratio. Then fiber post was placed to which composite core buildup was completed and temporary crown was given to a fractured maxillary premolar.

Outcomes: By utilizing a multidisciplinary approach, the patient achieved the best possible outcome, which often includes preserving the natural tooth and restoring its function and aesthetics.

Keywords: Complicated crown root fracture, Crown lengthening procedure, Fracture, Multidisciplinary approach, Premolar.

Authors: Vyshnavi Namburu

Affiliations: Sri Sai College Of Dental Surgery, India

Background: Stains and irregularities on tooth surfaces are factors that often lead patients to seek dental treatments to improve their smile aesthetics. Among these lesions, one may cite Molar Incisor Hypomineralization (MIH). The term molar incisor hypomineralization (MIH) describes the clinical manifestation of enamel hypomineralization of systemic origin affecting one or more permanent first molars and incisors. The exact etiology of MIH is still unclear but considered to be multifactorial. This case report aims to describe the step-by-step of a treatment of MIH on 4 permanent molars and central incisors of a young patient.

Diagnosis: A 7-year-old girl was referred to the pediatric dental clinic for restorations of multiple carious teeth. Upon clinical examination, based on the pattern of enamel hypomineralization and posteruptive breakdown presented, the diagnosis of MIH was established.

Treatment: As a part of the comprehensive treatment, molars were restored with stainless steel crown and incisors with resin-based composite restorations and resin infiltration, allowing the reestablishment of aesthetics and function, significantly influencing the self-esteem and quality of life of the patient.

Outcomes: A one-year recall appointment revealed both molars and incisors to be free from signs and symptoms of inflammation.

Keywords: Molar incisor hypomineralisation, permanent molars, resin infiltration, stainless steel crown

Authors: Zeba Kaunain

Affiliations: Sri Sai College Of Dental Surgery, India

Background: Cleidocranial dysplasia (CCD) is a rare genetic syndrome affecting one in a million people. It involves skeletal and dental abnormalities such as absent collarbones, open fontanelles, short stature, delayed tooth eruption, and supernumerary teeth. Treatment includes dental interventions, surgery, and managing complications to improve quality of life.

Aim: The present case report focuses on an 8-year-old girl diagnosed with CCD, highlighting her clinical and radiological features. It also emphasizes on the importance of early diagnosis and treatment options for a better quality of life for patients.

Treatment: The patient displayed a brachycephalic skull with frontal bossing and hypertelorism, alongside normal facial symmetry. Midface deficit and concave facial profile were noted, with sloping shoulders. Dental findings included retained deciduous teeth and delayed permanent teeth eruption. Further observations included prominent maxillary retrusion and Angle's Class III malocclusion. Multiple impacted supernumerary teeth were found in the lower canine and premolar regions, coinciding with delayed permanent teeth eruption. The genetic nature of the condition was evident from the patient's mother's similar dental history, suggestive of CCD's hereditary pattern.

Outcomes: The report stresses early diagnosis for effective treatment and better quality of life in rare cases like CCD. It highlights dentists' crucial role in CCD management, advocating a comprehensive, multidisciplinary approach. This case report improves understanding of CCD's dental implications, guiding treatment strategies for rare genetic conditions.

Keywords: Cleidocranial Dysplasia, Supernumerary Teeth, Genetic Disorders, Delayed Eruption.

Authors: Anjali Batra

Affiliations: Department of Periodontology, Manav Rachna Dental College, India

Background: Crown lengthening is a surgical procedure that positions gingival margin apically along with or without removal of marginal bone in order to maintain biologic width and enhance patient aesthetics. Interdisciplinary approach of treatment aids in providing comprehensive treatment and coordinate to salvage the teeth through a crown lengthening procedure to expose sufficient tooth structure to facilitate proper restoration and to get the desired appearance. This report presents a case of a 52-year-old female patient with attrited teeth in upper and lower front teeth region since 3-4 years. On examination, pulpal exposure was diagnosed in the mandibular anterior teeth for which root canal treatment was performed and was referred to department of Prosthodontics one month ago and was in turn referred to the department of Periodontology with a complaint of insufficient crown length. The aim was to provide marginally fit restorations with good aesthetics.

Diagnosis: Generalized plaque induced gingivitis with stage III attrition

Treatment: Non-surgical Periodontal therapy was performed followed by administration of local anesthesia, clinical crown lengthening was done using a diode laser subsequently placement of ceramic crowns in relation to mandibular anteriors was done.

Outcomes: Crown lengthening by diode laser was found to be painless and efficient procedure.

Keywords: Crown lengthening, biologic width, interdisciplinary, aesthetics, diode laser

Authors: Khyati Raghav

Affiliations: Department of Periodontology, Manav Rachna Dental College, India

Background: Impaction of maxillary and mandibular canines is a frequently encountered clinical problem, the treatment of which usually requires an interdisciplinary approach. The treatment of this clinical entity usually involves surgical exposure of the impacted tooth, followed by orthodontic traction to guide and align it into the dental arch. The management of impacted canines is important in terms of esthetics and function. Clinicians must formulate treatment plans which must be evidence based effective treatment modality and cost effective for the patients.

Diagnosis – Impacted type V malpositioned canine

Treatment: A 21 years old female patient presented with an impacted mandibular canine with an ongoing orthodontic treatment. After giving profound local anesthesia full thickness flap was raised and bone surrounding left mandibular canine was removed using round carbide burs. Orthodontic bracket was placed for the traction of tooth into the occlusal plane.

Outcomes: The surgical method used, proved to be effective in locating the impacted canine and is cost effective.

Keywords: ortho, impacted canine, osteotomy, canine exposure

DAY 1 Table Clinic Competition

SESSION 2 (2.45pm-4.15pm)

NO.	NAMES	TITLE	Supervisors
A1	1. Aeisya Sofea Binti Asmazi 2. Ain Najwa Bt Mohd Hakimi 3. Imanissa Qamarul Azua Bin Fezrin Azua 4. Angela Chong Wen Qi 5. Celine Ko 6. Chai Kai Wen 7. Chamkha Rawan 8. Chew Mei Jing	Smile Deception: The Dangers of Fake Veneers and Tooth-Damaging Trend	1. Prof. Datin Dr. Mahyunah Binti Dato' Masud 2. Dr. Akarsha S. Multani
A2	1. Chong Xin Yuan 2. Chua Winson 3. Daniel Afiq Nathan Bin Syafiq Gerard Nathan 4. Dayang Adlina Binti Abg Ahmad Zaidi 5. Emily Teo Dung 6. Malvin Siang 7. Emir Afiq Bin Mohamad Rodzman 8. Fiona Huang Xin Qi	OrthoAnchors: Revolutionising Orthodontic Treatment	1. Prof. Dato' Dr. Wan Mahadzir Bin Wan Mustafa 2. Assoc. Prof. Dr. Evelyn Lee Gaik Lyn 3. Dr. Lim Zhi Wei
A3	1. Chin Chien Yee 2. Han En 3. Hanna Binti Bakri 4. Hashvitha Kaur Dhaliwal 5. Jaipreet Kaur A/P Davinder Singh 6. Jaspreet Kaur A/P Sukhbindar Singh 7. Jeffery Liew Jin Wei 8. Joanne Gan Yi Zhen	All-In-1	1. Assoc. Prof. Dr. Jaffer Abdulla Mohamed Usman 2. Dr. Nithyakalyani Ramesh
A4	1. Joel Goh Wei Sing 2. Joshlin Lau Jia Wei 3. June Lee Jing 4. Kam Kai Rou 5. Karen Yeo Sze Yin 6. Khairunisa Umaira Binti Md Shukor 7. Chieng Jia Hui 8. Gunjan Ravi	Crown in a Day	1. Assoc. Prof. Dr. Ravikanth H Jujare 2. Dr. Aparnna Dhayanidhi 3. Dr. Ahbirami Supramaniam

DAY 1 Table Clinic Competition

SESSION 2 (2.45pm-4.15pm)

NO.	NAMES	TITLE	Supervisors
A5	1. Khamisa Tiham Mohamed Shueb Ayub Mussa 2. Kong Kai Hui 3. Lau Hui Teck 4. Leong Jia Qi 5. Lim Sheng Bei 6. Loo Vern 7. Lim Win Nie 8. Emily Anding Anak Winston Anding	Fake Dentistry	1. Assoc. Prof. Dr. Padmanabha Kumar 2. Dr. Narendra Prakash Rai
A6	1. Marni Shafiya Binti Yusof 2. Muhammad Aiman Bin Azizul 3. Muhammad Amir Danish Bin Mohd Arafat 4. Muhassanah Ayuni Binti Baharum 5. Nur Afina Binti Rosnan 6. Ng Yun Han 7. Nur Faezah Syahirah Binti Lingah 8. Nurhani Nadirah Binti Mohd Lotfi 9. Nurul Arina Bt Mohd Nordin	Modern Management of Early Childhood Caries	1. Prof. Dr. Shanthini Devi A/P Subramaniam 2. Dr. Nabilla Binti Mohd Shukor 3. Dr. Anissa Binti Lokman
A7	1. Nurul Ashyira Binti Baharudin 2. Nydia Lynn Yong Shu Thiin 3. Nyx Low Yan Shuen 4. Ong Wen Chiang 5. Poon Een Tong 6. Preeti Devi Nath 7. Previnjit Kaur 8. Qistina Aaliyah Bt Edy Zairani 9. Sek Xin Jie	Journey of thousand miles begins with a single step: Enhancing tactile sensation by exercising on eggs	1. Prof. Dr. Fouad Hussain M.H. Al Bayaty 2. Dr. Nilofer Nisha 3. Dr. Lim Zhi Yin Joan
A8	1. Siew Jing Yi 2. Siow Jenn Loo 3. Tan Jiun Jie 4. Tan Xin Xuan 5. Teshvinder Kaur Sandhu 6. Wong Jia Ying 7. Wong Yii Hong 8. Siew Winnie 9. Mohamed Usman Mohamed Uvais	"Demystifying The Mist" - Understanding white spot lesions in dentistry	1. Dr. K. Vijayamanohar 2. Dr. Sai Prannoy Nagella 3. Dr. Rohan Vinod A/L Raghavan Vinod

ORAL PRESENTATIONS

SESSION 1 (9 am-10 am)

NO.	NAMES	TITLE OF PRESENTATION
O-01	JANET CHAI PEI SHAN ELLYSA LEONG TENG SHAN ALIZA NUR SHUHAILI BINTI AZLAN	TOPICAL APPLICATION OF L. RHINOCERUS TM02 IN THE MANAGEMENT OF ORAL ULCER - A RANDOMIZED CONTROL CLINICAL TRIAL
O-02	SHARANYA A/P KATHIRAVAN LEE YAN HOONG WONG XIN PING	EXODONTIA ANXIETY - BEYOND CONTROL?
O-03	KEERTHANA ELONGOVEN NUR NABILA BINTI HANAPI CAESANDRA TIAN HOW EE	BREAKING THE SILENCE: UNCOVERING THE HIDDEN STRUGGLES OF DENTAL STUDENTS - A MIXED-METHODS STUDY
O-04	NG MAY WEI CHUA JIA XUAN FATHMATH ZIDHNA	AN INVESTIGATION TO DECREASE INTRODUCED ARTIFACTS CAUSED BY DENTAL RESTORATIONS ON CBCT SCANNED IMAGES

SESSION 2 (11.30am-1pm)

NO.	NAMES	TITLE OF PRESENTATION
O-05	PUTERI NORIMAN BINTI NORAZMAN WONG KHAI QING ESTHER LOOI ERNN	EVALUATING THE PRECISION AND CONSISTENCY OF TOOTH SHADE MATCHING: A COMPARATIVE STUDY
O-06	CHONG XIAO EN RUQAIYAH SOPHEA BINTI ZAMZAITUL AKMAL HISHAM SHARON WONG MING YUAN ESTHER GAN BEE WEI YUKI LEE YING WENSS	PATIENTS' PERSPECTIVES ON THE INTEGRATION OF ARTIFICIAL INTELLIGENCE IN DENTISTRY
O-07	CHIN SUET QI TEOH CHER YANG LIM KAI JI	ORAL CANCER AWARENESS AMONG NON-DENTAL UNDERGRADUATE STUDENTS IN MAHSA UNIVERSITY
O-08	SONIA DILLON WONG YI TENG NISALINI A/P THEAN BALLAN	PREVALENCE OF CARIES ON INDIVIDUAL TOOTH SURFACES AND ITS DISTRIBUTION IN MAHSA UNIVERSITY UNDERGRADUATE CLINIC
O-09	SITI KAISAH BINTI HAFIDZUDDIN LEW YEN TENG ANGELES LOI EN	ASSESSMENT OF PATIENT'S AND PROVIDER'S EXPERIENCE AT DENTAL OUTREACH PROGRAMMES
O-10	TAN FANG WEI LEE XIANG YOU JUEYAN	ASSESSMENT OF ORAL HEALTH KNOWLEDGE OF YOUNG ADULTS IN SUBANG JAYA

0-01

Topical Application of *L. Rhinocerus* TM02 in the Management of Oral Ulcer - A Randomized Control Clinical Trial

Aliza Nur Shuhaili binti Azlan¹, Ellysa Leong Teng Shan¹, Janet Chai Pei Shan¹, Yeannie Yap Hui Yeng², Betsy S. Thomas¹

¹Department of Periodontology, Faculty of Dentistry, MAHSA University, Jalan SP 2, Bandar Saujana Putra, 42610 Jenjarom, Selangor.

²Division of Applied Biomedical Sciences and Biotechnology, School of Health Science, IMU University, Jalan Jalil Perkasa 19, 57000 Kuala Lumpur.

Introduction: *Lignosus rhinocerus* (tiger milk mushroom; TMM) is one of the most valuable medicinal mushrooms used by local communities for various ethnobotanical uses including wound care. This study aims to determine the wound healing potential of *L. rhinocerus* TM02® in patients with oral minor aphthous ulcers.

Materials & Methods: Eighteen participants with oral ulcers and without systemic diseases were randomly selected and divided into 3 groups. (A) Treated with the base formulation as vehicle control (n=6), (B) Treated with triamcinolone acetonide 0.1% (n=5), and (C) Treated with a gel base formulation containing TM02® (n=7). The ulcer size, wound epithelialization, and pain scale scores were determined. Multiple mean comparison analysis were done using the Kruskal-Wallis test.

Results: Statistical analysis revealed a significant reduction in ulcer size (Grp A vs. Grp B vs. Grp C; p=0.013), indicating *L. rhinocerus* TM02®'s potential efficacy in wound healing. However, in wound epithelialization (Grp A vs. Grp B vs. Grp C; p= 0.874) and pain scale scores (Grp A vs. Grp B vs. Grp C; p=0.746), no significant differences were observed.

Conclusions: These results show that while *L. rhinocerus* TM02® topical application on oral ulcers reduces ulcer size in comparison to base formulation and triamcinolone acetonide 0.1%, further investigation and formulation improvement is needed to explore its potential on wound epithelialization and pain management of oral ulcer.

Keywords: *Lignosus rhinocerus*, Tiger Milk Mushroom, wound healing, oral minor aphthous ulcer

0-02

Exodontia Anxiety - Beyond Control?

Lee Yan Hoong¹, Sharanya A/P Kathiravan¹, Wong Xin Ping¹, Dr. Mohammed Subhi Sharief¹

¹Faculty of Dentistry, MAHSA University

Introduction: Exodontia, a procedure commonly performed by dentists, causes patient anxiety. Anxiety is influenced by many factors, including demographic, clinical, social support and dental history.

Materials & Methods: This cross-sectional study conducted from January 2023 to March 2024, collected data from 173 patients who visited MAHSA Dental Clinic for tooth extraction via Google questionnaire form. The data analysed four different types of factors, including demographic (age, gender, race, education level); Clinical (time of extraction, reasons for extraction); Social support (presence of a companion) and dental history (experience of previous tooth extractions and frequency of dental visits). Anxiety levels were measured using the Tooth Extraction Anxiety (TEA) scale, data analysis done using IBM SPSS software v29.

Results: Patients aged 18 to 29 years old are more anxious. Patients' gender and education level does not influence their anxiety level. Malay patients are more anxious than patients of other races. Neither extraction time nor the presence of a companion influence patients' anxiety. Patients are more anxious when extracting teeth for reasons other than decayed or mobile. Previous extraction experience had no effect on anxiety levels. Patients who frequently visit the dental clinic are significantly less anxious.

Conclusion: Age, race, reason for tooth extraction, and frequency of dental visits significantly impact the anxiety levels of patients undergoing tooth extraction. Understanding the impact of these factors with tailored interventions can reduce anxiety and improve patient comfort.

Keywords: Dental extraction, exodontia, anxiety, Tooth Extraction Anxiety Scale

Caesandra Tian How Ee¹, Keerthana Elongoven¹, Nur Nabila Binti Hanapi¹

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Introduction: The mental health and well-being of university students, particularly those in healthcare professions like dentistry, are increasingly recognized as crucial areas of concern. This study aimed to determine the prevalence of smoking and alcohol consumption, assess their relationship with stress levels, identify common stressors faced by dental students, and explore coping strategies.

Materials & Methods: A mixed-methods approach was employed among 258 undergraduate dental students at MAHSA University, Malaysia. Participants completed a cross-sectional survey including the Perceived Stress Scale (PSS), Smoking, and Alcohol Use Disorders Identification Test (AUDIT). Subsequently, 12 students identified with high stress levels participated in in-depth online interviews, which were recorded, transcribed, and analyzed using NVivo 14. Quantitative data from the surveys were analysed using SPSS Statistics V29.

Results: Results showed that 206 (79.8%) of students experienced moderate stress, with no significant association between stress levels and study phase ($p=0.225$). Smoking was reported by 18 (7%) of students, vaping by 26 (10.1%), low risk of alcohol use disorders by 70 (27.1%), and signs of hazardous alcohol consumption by 3 (1.2%). No significant associations were found between stress levels and substance use ($p>0.05$). Qualitative analysis revealed seven common stressors, including academic pressure, family challenges, future concerns, social conflicts, health issues, financial struggles, and university environment challenges. These challenges led to various emotional and psychological responses, such as anxiety, overthinking, fear of failure, and self-harm or suicidal thoughts.

Conclusions: In conclusion, prioritizing mental health support can empower dental students academically, professionally, and personally, contributing to a healthier and more resilient dental workforce.

Keywords: *mental health, substance use, dentistry, stress level, mixed-methods study*

An Investigation to Decrease Introduced Artifacts Caused by Dental Restorations on CBCT Scanned Images

Jia Xuan Chual, Zidhna Fathmath¹, May Wei Ng¹, Maher Abu Mosameh¹, Raghavendra Penukonda¹, Mahalingam Munisamy², Phrabhakaran Nambiar¹

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Introduction: To assess the reduction of introduced artifacts (to obtain excellent CBCT images) by varying the exposure settings (kV & mA) and also after different dental materials were molded on restored teeth.

Materials and Methods:

The smallest voxel size and field-of-view of the Vatech Green X CBCT machine was selected for this investigation as they produced better quality scanned images. The variously restored teeth were initially scanned with different X-ray exposure settings (kV & mA) to get the optimum image desired. Subsequently, a total of five common dental materials were molded to a dental sextant of three restored teeth. Each wrapped material was then scanned and a single, axial view representing the optimum image for each trial was evaluated for metal artifacts.

Results: Various patterns and artifacts created in CBCT scanned images including ring, honeycomb, Chinese letter, teddy bear, and pyramidal shaped artifacts. Upon varying the exposure parameters between mA 4.0-12.0 and kV 60- 99, significant reduction in artifacts was seen with exposure of 7.0mA and 70kV. The molded dental materials which reduced artifacts the most to least are as follows: Alginate, Silicone (Putty), Blu-Mousse, Modelling wax and Beading wax.

Conclusion: When varying X-ray exposures, the ideal exposure setting which produced images with least artifacts is with exposures of 7.0mA and 70kV. When dental materials were subsequently molded on the restored teeth, the default exposure parameter (9.8mA and 94kV) provided better clarity of images. Evidently, reduction of artifacts was the greatest with alginate wrapping when compared to other materials.

Keywords: *Cone-Beam Computed Tomography; Artifacts; Dental Materials; Dental Restorations*

0-05 Evaluating the Precision and Consistency of Tooth Shade Matching: A Comparative Study

Esther Looi Ernn¹, Puteri Noriman¹, Wong Khai Qing¹, Ooi Der Jun¹

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Introduction: The integration of teledentistry into modern dental practice has underscored the necessity for innovative tools that facilitate camera-based remote diagnostic systems. In aesthetic and restorative dentistry, the accurate matching of dental restorations to the natural colour of a patient's teeth is crucial for aesthetic appeal and patient satisfaction. Non-invasive imaging tools that facilitate precise shade selection help ensure that restorations look natural, enhancing the overall treatment outcome. This study aims to investigate the accuracy and reliability of tooth shade selection under varying light conditions using different instrumental techniques.

Materials & Methods: In this study, shades of 30 models with maxillary central incisors were evaluated using smartphone camera with polarized filter, intraoral scanner and spectrophotometer under the controlled 1000K and 10000K. Each tooth was divided into 3 quadrants (cervical third, middle third and incisal third) to evaluate differences in its shades. The CIE Lab values (L, a, and b values) were generated to indicate the colour of the tooth. The collected data underwent statistical analysis to determine the tools' accuracy and reliability in shade matching.

Results: Preliminary results reveal noticeable disparities in the accuracy and reliability among the evaluated devices, including intraoral scanners and smartphone cameras equipped with specialised photography accessories.

Conclusions: The variability noted between the different methodologies underscores the importance of further research to optimise these tools for remote imaging-based shade analysis. This is essential for advancing the capabilities of teledentistry and ensuring the delivery of consistently high-quality aesthetic and restorative dental care.

Keywords: *Shade selection, Digital Photography, Aesthetics, Light*

0-06 Patients' Perspectives on the Integration of Artificial Intelligence in Dentistry

Chong Xiao En¹, Esther Gan Bee Wei¹, Ruqaiyah Sophea Zamzaitul Akmal Hisham¹, Sharon Wong Ming Yuan¹, Yuki Lee Ying Wen¹, Nurul Diana Dzaraly¹, Nabilla Mohd Shukor¹

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Introduction: Artificial Intelligence (AI) is revolutionizing dentistry by introducing new technologies that enhance practice, diagnostics, and patient care. However, there are limited studies on the perception and awareness of AI in dentistry, particularly in Malaysian settings. Therefore, this study aims to determine the relationship between demographic characteristics (age, gender, and education level) and patients' knowledge, awareness, perception and factors influencing patients' attitudes toward AI in dentistry.

Materials and Methods: Between December and March 2024, a cross-sectional study with 154 patients at MAHSA Dental Clinic in Selangor were given a questionnaire divided into three sections: knowledge, perception, and influencing elements of AI. IBM's SPSS software, version 28.0 was used to analyse the data of descriptive and Chi-square analysis.

Results: Of the 154 patients, the majority were aged 18 to 25 (52.3%), female (54.8%), and tertiary-level education (78.1%). Despite more than half (52.9%) of the respondents being unfamiliar with the use of AI in dentistry, a significant majority (68.4%) believed that AI has the potential to improve the quality of treatment due to respondents' general knowledge about AI. Chi-square tests revealed significant correlations between educational level and gender in terms of knowledge about AI with a p-value of <0.001 and 0.027, respectively. Meanwhile, a significant association was found between age and the factor of safety concerns ($p=0.036$) and fear of making mistakes with AI ($p=0.01$).

Conclusion: In conclusion, respondents showed a positive attitude towards the integration of AI in dentistry.

Keywords: *Artificial Intelligence, dentistry, awareness, perception*

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Introduction: Oral cancer is an orofacial malignant neoplasm affecting all parts of the mouth. It is one of the most common cancers worldwide. Although the disease can be detected easily, the mortality rate of oral cancer is higher than many other cancers. The goal of this study is to identify and create oral cancer awareness among non-dental undergraduate students in MAHSA University.

Materials & Methods: A university based cross-sectional study was conducted among 368 non dental undergraduate students in MAHSA University during 2023-2024. The questionnaire was adopted from Babiker et al. It is a 19 questions survey where the responses were collected by 5 points Likert scale. Chi square test was carried out to analyse knowledge and awareness among undergraduate students in MAHSA University.

Results: The data shows a majority of MAHSA undergraduate students (86.1%) has heard about oral cancer. Significantly more students considered abnormal swelling is a sign of oral cancer (70.1%) and smoking/tobacco (74.4%) as risk factor. Although (46.5%) of the undergraduate students agrees that oral cancer screening is mandatory, a significant number of students (81.8%) has not gone to oral cancer screening.

Conclusions: MAHSA undergraduate students have fair knowledge and lack of awareness in detection of oral cancer.

Keywords: Oral cancer, Risk factors, Signs and symptoms, Non-dental Undergraduate students, MAHSA University

Prevalence of Caries on Individual Tooth Surfaces and its Distribution in MAHSA University Undergraduate Clinic

Nisalini A/P Thean Ballan¹, Wong Yi Teng¹, Sonia Dillon¹, Maan Ibrahim Khalil¹

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Introduction: Information about the caries distribution is important to enable dentists in assessing the risk of caries in individual tooth surfaces and providing proper treatment to a given level of caries risk. The objective of research was to assess cavity incidence rates of maxillary and mandibular permanent tooth surfaces.

Materials and Methods: A total of 148 patients who are dental students of MAHSA University ranging from 18 to 25 year-old selected according to inclusion criteria between 2023 and 2024, teeth were examined without drying the teeth using blunt explorers, following the International Caries Detection And Assessment System (ICDAS II). Carious teeth were identified and diagnosis of caries was made when there is direct proof of losing tooth substance. The differences in caries incidence between the surfaces of specific maxillary and mandibular teeth was evaluated using descriptive and inferential statistical analysis with SPSS 27.

Results: The maxillary jaw had 230 (54.37%) caries surface in total compared to the mandibular jaw which had 193 (45.63%) caries surface in total but caries frequency was mostly observed in occlusal surfaces on the mandibular left first molar (83%).

Conclusion: The frequency of caries on tooth sites is more prone in maxillary arch compared to mandibular arch. The reason could be a combination of complicated surface morphology and difficult access for effective oral hygiene. This study showed that caries prevalence, although relatively low in the study population, was found predominantly in occlusal surfaces, with an increasing prevalence in occlusal surfaces of mandibular First and Second molar teeth.

Keywords: Dental caries, tooth surface, ICDAS II, maxillary right/left, mandibular right/left

Angeles Loi En¹, Lew Yen Teng¹, Siti Kaisah Binti Hafidzuddin¹, Savithri A/P N. Vengadasalam¹
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Introduction: Regular dental visits are important to identify common oral health problems in the early stage to prevent the progression of oral disease. Despite considerable efforts undertaken by the Ministry of Health Malaysia, utilisation of oral healthcare services is still low. Outreach dental programmes play a crucial role in increasing awareness, early diagnosis and treatment, dental health education, and institution of preventive measures by 'bringing oral healthcare to the community'. However, the success of these programmes depends largely on how it meets the needs and expectations of the target community.

Materials & Methods: A descriptive cross-sectional study was conducted to assess the experience of participants and healthcare providers involved in MAHSA University's dental outreach programmes. Data was obtained through questionnaires from 311 participants, 62 dental students and 32 lecturers who participated in these outreach programmes. The questionnaire covers experience of participants in various aspects, student's experience and perception of healthcare providers.

Results: The satisfaction level of participants ranged from excellent to fair. Overall, about 75% of participants were satisfied with the outreach programmes. The domain with the highest satisfaction level was 'attitude of the dentists' whereas the domain with the lowest score was 'waiting time for check-up'.

Conclusions: Future outreach programmes need to be strengthened in identified areas for better service to the community and improvement of learning experience of dental students.

Keywords: *satisfaction level, dental outreach programme, improvement, experience*

Lee Xiang¹, Tan Fang Wei¹, You Jueyan¹, Anna Rani Kanagarajah¹
¹*Faculty of Dentistry, MAHSA University*

Introduction: This study investigates the oral health knowledge and practices of young adults residing in Subang Jaya.

Materials and Methods: A cross-sectional study involving 384 participants aged 18-30 years was conducted. Excluding dental professionals, students, and non-Malaysians, convenience sampling was employed. Oral health knowledge and awareness were assessed using a validated questionnaire.

Results: Analysis revealed subtle differences in dental check-up intervals between genders. No significant association was found between educational levels and dental check-up frequency. Females demonstrated higher rates of daily flossing, particularly among those with higher education levels. Additionally, females exhibited superior knowledge of fluoride compared to males, and individuals with higher education levels were more knowledgeable about fluoride. Higher education levels and female gender correlated with increased frequency of brushing, highlighting significant impacts on brushing habits.

Conclusion: This study underscores the influence of gender and educational level on oral health knowledge and practices among young adults in Subang Jaya. Tailored interventions are crucial for promoting optimal oral hygiene practices, accounting for gender and educational disparities.

Keywords: *Young adults, gender, educational level, oral health, Subang Jaya*

POSTER PRESENTATIONS

SESSION 1 (9am-10am)

NO.	NAMES	TITLE OF PRESENTATION
P-01	GRACE CHONG WERN FOONG LOW EE YONG LEONG WAN YEE	ROLE OF ORAL TORI IN RELATION TO BRUXISM
P-02	VICTOR LOW CHUN KEONG NUR IFFAH NABILAH BINTI ABDUL LATIF SEOW JIE XUAN	PLAQUE REMOVAL EFFICACY WITH FLARED BRISTLES OF THE TOOTHBRUSH
P-03	TAN CHIN NING BAN JIA HUI CAROL LAI JIA WEN	BACTERIAL AEROSOL CONTAMINATION IN DENTAL TREATMENTS
P-04	WONG YU THONG GAN WEI SHENG RUTHRAN A/L THIRUKESAN	KNOWLEDGE, AWARENESS, PERCEPTION AND PREFERENCE TOWARDS DIGITAL COMPLETE DENTURE AMONG YEAR 2 MAHSA DENTAL STUDENTS

SESSION 2 (11.30am-1pm)

NO.	NAMES	TITLE OF PRESENTATION
P-05	NEMERTA KAUR A/P CHARAN JEET SINGH AMIRAH BINTI RAHIMI JOVI LIM ZI JIAN	RADIOGRAPHIC EVALUATION OF OBTURATION IN ROOT CANAL TREATMENT PERFORMED BY UNDERGRADUATE STUDENTS IN A MALAYSIAN UNIVERSITY
P-06	LEE ZI QI NG YI XUAN JOANNE TAN SIAW LING	THE COMPARATIVE EVALUATION OF THE POLYMERIZATION SHRINKAGE, DEGREE OF CONVERSION AND MICROHARDNESS OF NEWLY INTRODUCED NANOFILLED COMPOSITE, WITH TWO COMMERCIALY AVAILABLE COMPOSITES – A BASIC TOOLKIT TO EVALUATE NEW COMPOSITES
P-07	QUAN LAM KIAT GOH WEN SHU EZZUAN EZZERIN BIN IRWANDEE	IS THE BURDEN OF DENTAL CARIES HIGHER IN A PRIVATE KINDERGARTEN COMPARED TO THE NATIONAL PREVALENCE?
P-08	SHU KIN MAN TAN JING SHI TAN EE HUA	EVALUATION OF CHITOSAN MOUTHWASH ON ANTIBACTERIAL AND ANTIPLAQUE PROPERTIES
P-09	ALI EEMAN MOHAMED LEONG JIA ERN LEE ZHENG CHEAN	PERCEPTION, AWARENESS, AND ATTITUDE TOWARD DIGITAL DENTISTRY AMONG YEAR 1 DENTAL STUDENT: AN OBSERVATIONAL SURVEY

P-01

Role Of Oral Tori in Relation to Bruxism

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Introduction: The maxillary and mandibular tori are implicated with the genetic and environmental factors, the exact aetiology of tori is not clear. The present study aimed to determine the relationship between torus palatinus & mandibularis with bruxism.

Materials & Methods: The present study involved 50 cases with the torus and 50 controls without torus. The study was carried out at MAHSA University. The subjects involved were examined for bruxism features like TMJ abnormalities, muscle hypertrophy, attrition of teeth and soft tissue findings clinically and a questionnaire related to the history of bruxism was obtained.

Results: The relationship between bruxism and presence of torus was found to be not statistically significant ($p = 0.673$). The prevalence of probable bruxism in our study was found in 47.1% in cases and 52.9% in controls. The examination data revealed that the cases presented with 50% TMJ abnormalities, 58.8% muscle hypertrophy, 49.5% attrition of teeth and 58% soft tissue findings. Meanwhile, the controls presented with 50% of TMJ abnormalities, 41.2% muscle hypertrophy, 50.5% attrition of teeth and 42% soft tissue findings.

Conclusion: The results of the present preliminary study revealed a relatively higher prevalence of bruxism and the present study revealed no relationship between bruxism and the occurrence of oral torus was noted.

Keywords: attrition, bruxism, oral torus, TMJ, tooth grinding, muscle hypertrophy

P-02

Plaque Removal Efficacy with Flared Bristles of The Toothbrush

Nur Iffah Nabilah¹, Seow Jie Xuan¹, Victor Low Chun Keong¹, Laxmi Tejaswin Polepalle¹.

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Introduction: The aim of this study is to investigate the efficacy of regularly changing toothbrushes compared to using new and flared bristle toothbrushes on plaque removal during brushing. The study results can aid in educating patients and increasing awareness for appropriate recommendations regarding when to change toothbrushes.

Materials & Methods: Forty participants were randomly selected and informed consent was obtained after providing a clear explanation about the study. All the participants underwent full mouth ultrasonic scaling at baseline, followed by recording baseline plaque scores and receiving oral hygiene instructions using the Modified Bass technique. All were provided identical toothbrushes and toothpaste. They were randomly divided into two groups: Group 1 changed toothbrushes every month for 3 months, and Group 2 used the same toothbrush for 3 months. One examiner allocated participants to groups based on randomization and scheduled review visits, recording bristle flaring. The other two examiners, blinded to group allocation, recorded plaque scores using the O'Leary Plaque Index (a measure of plaque accumulation) and adverse events. Toothbrush bristle flaring was verified and recorded using the Conforti Index at each visit.

Results: In Group 1, toothbrush flaring and plaque scores did not change after each month. Group 2 exhibited increased toothbrush flaring at months two and three, with a corresponding increase in plaque scores after two months that progressively worsened after three months.

Conclusion: As toothbrush flaring increased with extended use, plaque removal efficacy significantly decreased. Therefore, replacing toothbrushes every three months is crucial for optimal plaque removal.

Keywords: Plaque removal, Flared bristles, Toothbrush flaring, Plaque deposition, Recommendation period of toothbrush replacement

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Introduction: The field of dentistry faces substantial challenges in ensuring the safety of patients and practitioners particularly concerning the transmission of bacterial aerosols. This study aims to evaluate the bacterial load present on face shields following aerosol-generating dental procedures.

Materials & Methods: The aerobic bacterial load generated from scaling and filling procedures were analyzed. In brief, face shields were first disinfected with 70% alcohol and worn by dental students during the treatments. Then, face shield surfaces were sampled with sterile cotton swabs at the end of clinic sessions. The collected samples were spreaded on Trypticase soy agar (TSA) plates and incubated overnight at 37°C, the colony forming unit (CFU/plate) were recorded. Mann Whitey U was used to compare the mean CFU between groups.

Results: This study encompassed 34 scaling cases, alongside 19 filing cases performed with rubber dam and 15 filing cases without rubber dam. There was no significant difference between the two procedures with scaling cases exhibiting a mean CFU of 9.23 (± 12.90) and filling cases exhibiting a mean CFU of 20.12 (± 72.72) ($p=0.776$). Moreover, there was no significant difference between filling cases with and without rubber dam with mean CFU of 7.59 (± 9.73) and 36.00 (± 108.91) respectively ($p=0.471$).

Conclusion: While substantial mean differences were observed, the lack of statistical significance alongside a large standard deviation suggests caution in interpreting the findings, highlighting the need for further investigation into underlying factors contributing to variability.

Keywords: Bacterial aerosols, Dental treatments, Face shields, Infection control, Colony forming unit

Knowledge, Awareness, Perception and Preference Towards Digital Complete Denture Among Year 2 MAHSA Dental Students

Gan Wei Sheng¹, Ruthran A/L Thirukesan¹, Wong Yu Thong¹, Noor Addeen Abo Arsheed¹.

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Introduction: Digital technology advances at a rapid pace, transforming various industries and aspects of everyday life including dentistry. However, not many studies have been conducted on knowledge, awareness, perception and preference of digital dentures. Thus, the aim of this study is to assess knowledge, awareness, perception and preference within year 2 Mahsa dental students.

Materials & Methods: The study was conducted using a cross sectional study consisting of 4 domains which is the knowledge, awareness, perception and preference towards digital complete denture. The questionnaire was distributed to the students who completed their conventional complete denture and had been demonstrated digital complete denture designing as well as hands on between 6th November 2023 to 15th January 2024. 46 responses in all were obtained. Descriptive statistical Analysis was done with IBM SPSS version 27.

Results: Analysis showed that respondents have limited knowledge about digital denture before a demo and presentation and shown significant understanding after a demonstration. Respondents are well aware of the presence of digital dentures accounting for 63% and showed a deep interest in learning digital dentures accounting for 82.6%. Additionally, Respondents showed significant majority in preference towards digital dentures which accounted for 97.8%.

Conclusion: Students are showing interest, preference and well aware presence of digital denture. Digital technology are suggested to implement in dental school curriculum to provide competent and well knowledge dentist.

Keywords: digital denture, prosthetic dentistry, knowledge, perception, awareness

Radiographic Evaluation of Obturation in Root Canal Treatment Performed by Undergraduate Students in a Malaysian University

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Introduction: This study was carried out to assess the frequency of mishaps in root canal treated teeth(RCT) and the relationship of each type of mishaps to the type of tooth. It evaluated the performance of RCT performed by MAHSA undergraduate dental students radiographically from 2020-2022.

Materials & Methods: Radiographic records from 279 patients who received endodontic treatment by undergraduate students from 2020 to 2022 were analysed. Root canal obturation quality, including length, radiodensity uniformity, and adaptation to canal walls, was assessed. Inadequate obturation encompassed cases with procedural errors. The Chi-square test was used to identify significant findings between mishap types and tooth types ($p < 0.05$).

Results: 42.3% of patients had adequately filled root canals, with the highest rate observed in incisors (42.2%) and the lowest in canines (5.1%). The most frequent mishaps involved voids in obturation, with the highest occurrence in incisors (44.5%) and the lowest in molars (10.9%). A statistical significant difference was seen in the frequency of missed canals between the types of teeth, highest seen in molars ($p=0.001$). There was also a statistical significant difference was seen in the frequency of underfilled obturation between the types of teeth, highest seen in premolars ($p=0.013$).

Conclusion: Undergraduate students at MAHSA University showed higher rates of successful root canal treatments when compared to individual mishap. However, mishaps are still high, suggesting a need to reassess simulation training to enhance treatment outcomes.

Keywords: undergraduate students, root canal therapy, radiography, mishaps, root canal obturation

The Comparative Evaluation of the Polymerization Shrinkage, Degree of Conversion and Microhardness of newly introduced Nanofilled Composite, with two commercially available composites – A basic toolkit to evaluate new composites

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Introduction: During the last decade, composite resin restorative material is rapidly evolved to incorporate advance in dental material science. As a result, new products are launched by companies at a remarkable pace. Hence it is prudent to independently evaluate the clinical-relevant physical properties of these products; and compare them to established commercially available products. MerFill Nano LC (MNLC) is one such example of a newly introduced, restorative composite resin; and thus, needs to be investigated, and compared with Shofu Beautifil II (SBII) and Dentsply Ceram. X SphereTec (DCX).

Materials & Methods: Degree of conversion was evaluated using a FTIR spectrometer, $n = 20$ per group. Polymerization shrinkage (in terms of volume change) was tested using the buoyancy method, the mass was integrated into Archimedes' principle to calculate density of samples, $n = 20$ per group. Microhardness test was done with Vickers microhardness tester, $n = 20$ per group.

Results: Data of the results were analysed, MNLC has no significant difference in polymerisation shrinkage, when compared to SBII and DCX. With regards to degree of conversion, DCX had a significantly greater conversion than MNLC, and SBII. Lastly, the microhardness of MNLC was significantly lower than DCX and SBII.

Conclusion: MNLC has comparable DCX and Polymerisation Shrinkage, but lowest microhardness compared to SBII and DCX. The performance of MNLC in a clinical scenario within the oral environment may not be satisfactory. This study vindicates the need for Academia to individually verify the claims of the manufacturers.

Keywords: Dental Material Science, Degree of Conversion, Polymerization Shrinkage, Microhardness, Nanofilled Composite

Is the Burden of Dental Caries Higher in a Private Kindergarten Compared to the National Prevalence?

Lam Kiat Quan¹, Wen Shu Goh¹, Ezzuan Ezzerin B. Irwandee¹, Rashidah Esa¹

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Introduction: Currently, the caries prevalence and experience among Malaysian preschoolers remains high. This study aimed to investigate caries prevalence, experience and oral hygiene status among children attending private kindergarten. Additionally, the oral health knowledge, attitude and behaviour were assessed.

Materials & Methods: A pilot study was conducted involving 100 preschool children aged 4-6 years in a private kindergarten. Caries parameters and plaque scores were assessed through oral examinations, while a questionnaire evaluated oral health knowledge, attitude and behaviour. Data were analyzed using descriptive statistics and cross tabulation.

Results: Overall, 87% children participated and the prevalence of dental caries was 56.3%. The mean of decayed, missing, filled teeth and dmft were 2.14, 0.22, 0.07 and 2.43. The mean plaque score were 20.54% (overall) and 16.52% (anterior). The overall oral hygiene statuses were: 50.6% (excellent), 21.8% (good), 3.4% (fair) and 24.1% (poor). Majority have knowledge regarding dental caries (>77.5%). However, less than 37.5% knew the adverse effects of dental plaque and fizzy drinks on the teeth. More than half (52.5%) had regular dental visits, 82.5% brushed their teeth frequently and had good diet behavior.

Conclusion: This study highlighted the caries prevalence and experience (56.3%;2.43) were lower than the national average (71.3%;4.83), with satisfactory oral hygiene status, knowledge, diet behaviour and attitude. Nevertheless, further oral health programs are essential, with a particular emphasis on private kindergarten settings.

Keywords: Dental caries, plaque score, preschool children, private kindergarten

Evaluation of Chitosan Mouthwash on Antibacterial and Antiplaque Properties

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Introduction: Oral health is crucial for overall well-being, and maintaining proper oral hygiene is essential. Mouthwash is a widely used and effective chemical plaque control method that has become a standard practice globally. The study aims to assess seafood-derived chitosan mouthwash by testing its ability to fight bacteria (*Streptococcus mutans* and *Lactobacillus acidophilus*) and reduce plaque formation.

Materials & Methods: With presence of 2 % chitosan had been shown in inhibiting growth of *Streptococcus mutans* and *Lactobacillus acidophilus* in vitro. Twenty healthy volunteers aged 18-25 years old with regular tooth brushing habits, no reported medical conditions, at least 24 teeth present (with 5 in each quadrant), and a Modified Gingival Index (MGI) score of 1-2 (indicating mild gingivitis) were recruited. Participants were divided into two groups: control (using a commercial mouthwash) and treatment (using a chitosan mouthwash). Saliva and plaque samples were collected before and after a 14-day period where participants rinsed twice daily with their assigned mouthwash. Bacterial colony counts were determined from the samples, followed by statistical analysis.

Results: Both commercial and chitosan mouthwashes demonstrated antibacterial and antiplaque properties. However, the chitosan mouthwash exhibited significantly greater efficacy against *Streptococcus mutans*, reducing its population by 29.2% compared to the commercial mouthwash's 3.6% reduction ($p < 0.05$). While both mouthwashes reduced *Lactobacillus acidophilus* (commercial: 68.8%, chitosan: 51.2%), the difference was not statistically significant.

Conclusion: This suggests that the 2% chitosan mouthwash might be a more effective option for combating *Streptococcus mutans*, a primary culprit in dental cavities.

Keywords: chitosan, modified gingival index, mouth wash, O'leary plaque score, *Lactobacillus acidophilus*, *Streptococcus mutans*

P-09

Perception, Awareness, and Attitude Toward Digital Dentistry among Year 1 Dental Student: An Observational Survey

Mohamed Ali Eeman¹, Lee Zheng Chean¹, Leong Jia Ern¹, Mahmood Alayham Abbas¹

¹ Faculty of Dentistry, MAHSA University

Introduction: Digital dentistry encompasses a range of technologies such as CAD/CAM (Computer-Aided Design/Computer-Aided Manufacturing), intraoral scanners, 3D printing, and digital radiography. These technologies are revolutionising dental practice by enabling more accurate diagnoses, precise treatment planning, and enhancing patient care.

Materials & Methods: This observational survey aimed to investigate the perception, awareness, and attitude of year 1 dental students in Malaysia toward digital dentistry. A structured questionnaire was distributed to a sample of year 1 dental students, focusing on their familiarity with digital dental technologies, perceptions of its benefits and challenges, and their overall attitude toward incorporating digital tools into their future practice.

Results: The findings revealed that the majority of year 1 dental students showed a positive attitude toward digital dentistry, recognizing its potential to enhance clinical outcomes, improve treatment efficiency, and enhance patient satisfaction.

Conclusion: Despite the positive attitude and awareness regarding digital dentistry, there exists a notable gap in their in-depth knowledge about digital dental technologies. To capitalise on the benefits of digital tools effectively, it is imperative to implement targeted education and training initiatives. By bridging this knowledge gap, students can be empowered to maximise the potential of digital dentistry in their future dental practice, ensuring enhanced patient care and treatment outcomes.

Keywords: Digital dentistry, perception, awareness, attitude, dental students, observational survey

Video Competition and Quiz

2-Minute Video Competition Theme : Life of a Dental Student

NO.	PARTICIPANTS	YEAR OF STUDY
1	LIM WIN NIE	YEAR 4
2	TAN YI QIAN	YEAR 2
3	FARISYA DAMIA BINTI MOHD OTHMAN	YEAR 2
4	NATALIE LEOW XIN NING	YEAR 3
5	NURUL ASHIQIN ZULKEFLI	YEAR 3
6	JONATHAN CHEE WAI HYNN	YEAR 3
7	NATASHA SHAMSURI	YEAR 3

Quiz Team

NO.	PARTICIPANTS	YEAR OF STUDY
1	CHEONG ZHI REN FIONA HUENG XIN QI WONG KHAI QING	YEAR 3 YEAR 4 YEAR 5
2	GOH SHU HONG ONG WEN CHIANG QUAM LAM KIAT	YEAR 3 YEAR 4 YEAR 5
3	EE KAI JOE HANA BAKRI TAN JING SHI	YEAR 3 YEAR 4 YEAR 5
4	HENG KA YIN LIM WIN NIE KEERTHANA ELANGOVEN	YEAR 3 YEAR 4 YEAR 5
5	CONSTANCE WONG TAN XIN XUAN FATHMATH ZIDHNA	YEAR 3 YEAR 4 YEAR 5

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