ABAOMS

Association of British Academic Oral and Maxillofacial Surgeons

Annual Scientific Conference Programme

British Dental Association, Wimpole st, London

9th & 10th November 2023

Organising committee:

Dr Nadine Khawaja, King's College London

Dr Katarzyna Gurzawska, Liverpool

Dr Hanya Mahmood, Sheffield

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Contents

Thursday 9th November

	Lecture title or Session	Speaker(s)
0900-1050	**Registration & Coffee**	
0900	**Education committee meeting for ABAOMS reps** (5th floor boardroom) **Trainees meeting** (upper mews room)	
0945	**AGM** (lecture theatre) Chaired by Prof. Kate Taylor	
1050	**Conference opening**	**Professor Kate Taylor** President ABAOMS
Invited Lectures Chaired by Prof. Kate Taylor & Dr Kasia Gurzawska		
1100	**Update on IV sedation and education.**	**Dr Bryan Kerr** Consultant/ Honorary Senior Clinical Lecturer, London
1130	**Career journey to UK's first female OMFS professor.**	**Professor Kathy Fan** Professor Oral & Maxillofacial Surgery, London
1200	**Specialist training update.**	**Professor Tara Renton** Professor in Oral Surgery, London **Dr Callum Wemyss** Scottish Clinical Leadership Fellow, SpR Oral Surgery, Glasgow
1230	**Lunch** Posters & exhibitor displays	
1330	**Open paper session – Oral presentations-** Chaired by Dr Nadine Khawaja Charlotte Richards, **Teaching and assessing local anaesthesia in UK Dental Schools.** Mona Yekezare, **Histopathological Analysis & Treatment Modalities of Oral Dysplasia: Implications for Patient Management.** Hamideh Saghafi, **Innovation in 3D assessment of skeletal stability and quality of occlusion following Le Fort I maxillary osteotomy using Surgery first approach.**	
1400	**Digital & AI analysis of oral dysplasia to aid early cancer detection.**	**Dr Hanya Mahmood** NIHR Doctoral Research Fellow & Academic Clinical Fellow in Oral Surgery, Sheffield
1430	**Steroid cover update; the new guidelines.**	**Dr Emma Beecroft** Clinical Academic Fellow in Oral Surgery, Newcastle
1500	**Break** Poster & exhibitor displays	
1530	**Open paper session – Oral presentations** - Chaired by Dr Kasia Gurzawska Rahmeh Alhyari, **Understanding the patient's perspective of CBCTs in wisdom tooth surgery.** Asha Thomson, **Changing the Narrative for Dual Degree Students in OMFS.** Amina Arshad, **Local anaesthesia: the use of bupivacaine in reducing the need for post-operative analgesia following orthognathic surgery.**	
1600	**CBCT in oral surgery.**	**Dr Lee Feinberg** Consultant in Dental & Maxillofacial Radiology
1650	**Prize presentation oral presentation open papers competition**	
1700	**Drinks reception & hors d'oeuvres**	
1930	**Close**	

Friday 10th November

	Lecture title or Session	Speaker(s)
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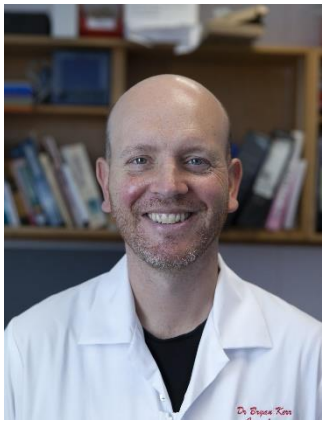
0900	**Emerging technologies in bone regeneration.**	**Dr Katarzyna Gurzawska** Consultant in Oral Surgery, Liverpool
0930	**The revolution in apical surgery; how to get a success rate of over 90%.**	**Dr Daniel Flynn** Specialist Endodontist, London
1015	**Break** Poster & exhibitor displays	
1045	**Assessment fit for purpose?**	**Prof Vince Bissell**, Dean, School of Dentistry, Liverpool
1135	**Impact of digital media and social media on the dental profession and dental education.**	**Dr Jonathan San Diego** Senior Lecturer in Educational Technology & Health Informatics **Dr Francisca Velasquez Cerda** PhD Student, Centre for Dental Education, Faculty of Dentistry, Oral & Craniofacial Sciences, KCL
1215	**Lunch** Poster & exhibitor displays	
1315	**Humanitarianism and enhancing Research Capacity.**	**Professor Paul Coulthard,** **Dr Tamana Barakati & Dr Mohammad Ismail Farook** Queen Mary University of London
1345	**Trigeminal neuralgia; an update on guidelines & management of acute flare-ups.**	**Professor Joanna Zakrzewska** Consultant in Facial Pain, London
1410	**Migraine.**	**Dr Katy Munro** Headache Specialist, Podcaster
1455	**Dental psychology service & the management of chronic orofacial pain.**	**Dr Sam Spedding** Consultant Psychologist, London
1535	**Break** Poster & exhibitor displays	
1600	**Complications in implant surgery for limited bone.**	**Dr Robert Bolt** Senior Clinical Lecturer/ Hon Consultant, Sheffield
1650	**Prize giving posters**	
1700	**Close**	

Invited speaker biographies:



Dr Bryan Kerr is a Consultant in the Department of Sedation and Special Care Dentistry at Guy's and an Honorary Senior clinical Lecturer at King's College London. He is the Chief Investigator of Remident, a current clinical trial of remimazolam vs midazolam for oral surgery. He is a Member of SAAD teaching Faculty and Past DSTG chair. He has an Msc in sedation 2012 and is currently doing MD(Res) neuropharmacology.

Professor Kathy Fan is a consultant in Oral and Maxillo-Facial, Surgery at King's College Hospital and Professor in Oral and Maxillo-Facial Surgery at Kings College London.

Kathy undertook her undergraduate dental training at the United Medical and Dental schools Guys and St Thomas's hospital University of London. Her plan to return to study medicine after passing FDS RCS Eng was interrupted by a PhD opportunity to study the application photodynamic therapy in head and neck cancer at University College London . In 1997 she commenced her medical studies at the Saint Bartholomew's and The Royal London Hospitals. After basic surgical training, Kathy entered specialist OMFS training in London, Kent and Sussex and was appointed as an NHS consultant and honorary senior lecturer in 2007. Kathy is the Vice president of the British Association of Oral and Maxillo-Facial Surgery. Council member British Medical Laser Association and Co Editor in chief CranioMaxillofacial Trauma & Reconstruction.

Professor Tara Renton, Specialist in Oral Surgery, completed dentistry Guys (1984), OMFS Melbourne University (1991) and a neuroscience PhD at KCL (2003). Tara established multi collaborative and disciplinary research teams with international repute in third molar surgery, patient safety, trigeminal nerve injury and orofacial pain evidenced by over 250 peer reviewed articles. She has established two patient facing websites www.**Trigeminalnerve.org.uk** and www.orofacialpain.org.uk.

Dr Callum Wemyss is a Specialty Registrar in Oral Surgery in the West of Scotland and an Honorary Clinical Teacher at the Dental School at the University of Glasgow. In the final month of ST3 he went out of programme and is undertaking the Scottish Clinical Leadership Fellowship where he is working with NHS Education for Scotland and Scottish Government. He was trainee representative for BAOS in 2022 before becoming the logbook and portfolio lead for the Oral Surgery SAC at the beginning of 2023. He has been heavily involved in the development of the updated curriculum and the ongoing work developing the assessments for this.

Dr Hanya Mahmood is an NIHR Academic Clinical Fellow in Oral Surgery based at the School of Clinical Dentistry, University of Sheffield. During her ACF she completed a Master's in Clinical Research, Diploma of Membership in Oral Surgery, and was awarded a prestigious NIHR Doctoral Fellowship to pursue her research in the use of Artificial Intelligence to aid the early detection of oral cancer. Her current research focuses on the application of machine learning and digital methods to explore novel markers important in the progression of oral dysplasia to malignancy. She is a key member of the evolving NEOPATH research group, leading innovation in head and neck cancer research. She is also a member of the British Dental Associations' Health and Science committee and Chair of the Education Committee for the Association of British Academic Oral and Maxillofacial Surgeons.

Dr Emma Beecroft, is a clinical academic OS trainee in Newcastle. Her area of research interest is pain. She is currently out of programme completing her PhD exploring commonalities in voltage gates sodium channel function between Parkinsons disease and orofacial neuropathic pain, in a bid to identify pharmacological targets.

She is passionate about patient safety and service improvement which has led to her involvement in the development of a number of clinical guidelines. The aim of the discussed guideline is to ensure safe care for those at risk of adrenal insufficiency undergoing dental care.

Dr Lee Feinberg is specialist in Dental and Maxillofacial Radiology and works as a Consultant Dental and Maxillofacial Radiologist at Kings College Hospital, London and at the Eastman Dental Hospital, University College London Hospitals. He is currently the Honorary Secretary of the British Society of Dental and Maxillofacial Radiology and Vice President of the International Association of DentoMaxilloFacial Radiology.

He completed his specialist training in Liverpool being trained by both Dental and Maxillofacial and ENT/Head and Neck Radiologists. He has clinical experience reporting Radiographs, CBCT, CT and MRI examinations. He performs specialist salivary gland imaging, diagnostic ultrasound and ultrasound-guided biopsies of the head and neck region.

He is also an Honorary Senior Clinical Lecturer at Kings College London where he is involved with undergraduate teaching and assessment in Dental Radiology. Lee has a passion for teaching and he also lectures regularly to postgraduate dental professionals on a range of radiology related topics.

Dr Kasia Gurzawska-Comis is a Senior Clinical Lecturer/Honorary Consultant in Oral Surgery at the University of Liverpool. She previously completed NIHR speciality training at the University of Birmingham. Her main clinical interest is the multidisciplinary approach to patient care, with specific interest in tooth autotransplantation, bone regeneration and dental implantology.

Her research interest is in bone regeneration, stem cell therapy, nanotechnology and tissue engineering. She obtained her first PhD in medical science at the University of Copenhagen and second PhD in bioengineering at the Technical University of Lodz and Danish Technical University (DTU). She continued her scientific career as Marie Skłodowska-Curie post-doc at the Charité Medical University Berlin and developed over years collaboration with multiple international universities. Her future research goals focus on developing alternative biomaterials for autogenous bone grafts in ageing and medically compromised patients. This work is being undertaken with University of Bergen in Norway and as a member of Liverpool Head & Neck Centre (LHNC).

Dr Daniel Flynn completed his three-year Clinical Masters and Specialist Endodontic training at the Eastman Dental Institute in 2008. Daniel now spends most of his working week in private practice in London treating complex endodontic cases. He has a special interest in endodontic microsurgery and often receives referrals from other specialists in the field.

In addition to working in practice, he delivers hands-on courses and is the founder of Toothsaver.co.uk, a dental supply company developed on expertise and education.

Professor Vince Bissell was appointed Dean of the School of Dentistry at the University of Liverpool in December 2017. He graduated in Leeds in 1985, following which he moved to Edinburgh where he completed specialist training in Restorative Dentistry and a PhD. After as very brief spell in the Gulf state of Qatar he became a Senior Lecturer in Restorative Dentistry at the University of Glasgow, being appointed to a chair in 2011. Whilst at Glasgow he served as the Associate Dean for Dental Education and Deputy Head of School. He was Secretary to the Faculty of Dental Surgery at the Royal College of Surgeons of Edinburgh between 2005 and 2008, and from 2010 to 2017 was Chair of the GDC's Overseas Registration Examination Board. He is currently the dental representative on the Clinical Academic Staff Advisory Group of UCEA and is a Principal Fellow of the Higher Education Academy.

Dr Jonathan San Diego's main research interests involve how new technologies affect students' understanding and knowledge by examining how computer-based representations and simulation influence cognition, reasoning and learning. Jonathan has been at the cutting edge of the use of educational technologies for over 30 years. He teaches at the undergraduate and postgraduate levels and supervises dental education research projects. He holds Doctor of Philosophy (PhD) in Educational Technology.

Francisca Velásquez is currently pursuing her Ph.D. in Dental and Health Sciences at King's College London, focusing her research on the visual and social perception towards individuals with visible facial differences. Her work seeks to foster greater understanding and empathy in society while enhancing the well-being of those affected by these differences. Furthermore, Francisca is an advocate for innovation and the use of cutting-edge technology in dental education, in order to revolutionize the training of dental professionals. She holds a DDS and a MSc in Maxillofacial and Craniofacial Technology.

Dr Tamana Barakati

Research Fellow Queen Mary University of London

Former Dean for Dentistry & Director

Kabul University of Medical Sciences (KUMS)

Academic Leadership Team KUMS

Assistant Professor of Prosthodontics with research interest in implant support dental fixed and removable prosthesis, maxillofacial prosthesis, and systematic review preparation

Dr Mohammad Ismail 'Farook'

Research Fellow Queen Mary University of London

Former Dean of Public Health Faculty

Kabul University of Medical Sciences (KUMS)

Academic Leadership Team KUMS

Urologist, Ali Abad University Hospital, Kabul, Afghanistan

Previous Senior advisor to the Ministry of Higher Education

Epidemiological research and PhD, Teacher of Epidemiology

Research interest in drug addiction and health

Professor Paul Coulthard

is a **Professor of Oral and Maxillofacial Surgery** and was **Dean** for Dentistry and Institute Director, Institute of Dentistry, Queen Mary University of London, from January 2019 to August 2023. He is a **Consultant Oral Surgeon** with Barts Health NHS Trust. Professor Coulthard is Honorary Dental Consultant Advisor to the **Office of the Chief Dental Officer**, NHS England and NHS Improvement 2020-2024. He was President of the 'British Association of Oral Surgeons' and is now immediate **Past President**. He has **published over 200 scientific papers** and has an international research reputation in the fields of Oral and Maxillofacial Surgery, Oral Implantology, and the Control of Pain and Anxiety. His PhD is in neuroscience. He is leading research in the response of healthcare professionals to domestic violence. Professor Coulthard has Chaired a number of influential committees for **NHS England**. He has led the development an 'Oral Surgery Standard' from the 2015 Commissioning Guide published by NHS England in 2023. He has contributed to the Scottish Dental Clinical Effectiveness Programme (**SDCEP**), publishing clinical guidance. He has been a Cochrane Collaboration **Editor** since 2002 and was **Editor-in-Chief** of Oral Surgery 2013-2018.

Professor Joanna Zakrzewska is both dentally and medically trained (London and Cambridge). Between 2007- 2015 she set up the largest award-winning UK multi-disciplinary facial pain service at UCLH, London. Now set up a national Trigeminal Neuralgia Institute. Consultant at UCLH. She has written six books contributed to 28 chapters, written over 200 peer reviewed papers and has been rated as the top expert in trigeminal neuralgia in the world. She has given over 100 invited talks in 30 countries.

Dr Katy Munro, a GP partner for 25 years, now works as a Headache Specialist GP for the National Migraine Centre, a charity providing consultations to people with migraine with Headache specialist doctors. She co-founded and hosts **Heads Up podcast**, Podcast of the Year 2021 finalist in the Medical Journalists Awards. Her book, **"Managing Your Migraine",** Penguin Life Expert Series, aims to empower people with migraine to manage their condition better through understanding what is going on.

She has spoken to a wide variety of audiences and on TV and radio about migraine. She is currently Secretary and Council member of the British Association for the Study of Headache (BASH).

Dr Sam Spedding is the clinical lead in dental and orofacial psychology and a consultant psychologist at King's College Dental Hospital. Here he leads a team which works across dental and orofacial specialities including maxillofacial surgery, orthodontics, special care dentistry and oral medicine. His special interests are in working with appearance-related difficulties, chronic pain, anxiety and trauma and in developing psychological-informed practice in multidisciplinary teams. He has previously been clinical lead in eating disorders at West London NHS Trust and worked in the bariatric surgery teams at Homerton and Whittington hospitals.

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4	**Krishantini Mahendran**	Mycosis fungoides of the oral cavity: A case report
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18	**Rebecca King**	Improving Oral Surgery Learning Opportunities for Dental Core Trainees
19	**Yousef Wafadari**	Visionary Approach: Should Dental Core Training Include More Ophthalmology?
20	**Delia Smyth**	OMFS DCT – Does it help to build clinical confidence? Self reported perception of increase in confidence over a year as an OMFS DCT in Bradford
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4	**Katie Dolaghan**	Rise of the machines?
5	**Jennifer Kelly**	A rare presentation of intra-oral mucosal melanoma in a young person- A case report
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17	**Pippasha Khan**	Third molar removal and lingual nerve injury, update: Literature Review
18	**Pippasha Khan**	To outline the educational tools available to dental core trainees in OMFS to carry out their role
19	**Joanna Ismail**	A quality improvement project: Improving oral health in OMFS patients
20	**Sophina Rani Mahmood**	An unusual presentation of recurrent pericoronitis
21	**Sylwia Nowak**	The effectiveness of autologous platelet concentrates in prevention of medication-related osteonecrosis of the jaws: a systematic review

Poster abstracts:

What are the Implications of Vaping on Oral surgery Patient Management?

Kelten R Clements[1], Kurt B Naudi[1]

[1]Glasgow Dental School, School of Medicine, Dentistry and Nursing, University of Glasgow, Glasgow, UK

The use of vaping products, particularly among young individuals, has rapidly increased. This has been partly driven by a prevailing public perception that vaping is a healthier alternative to conventional cigarettes which is reinforced by the scarcity of high-quality and conclusive evidence on the potential harms of vaping compared to other recreational drugs. Despite limited evidence, emerging findings suggest vaping could lead to some comparable adverse effects as smoking, potentially being a risk factor in post-operative complications, free flap failure and peri-implant disease as well as causing direct traumatic injuries.

Further research is necessary to deepen our understanding of the surgical implications of vaping and its influence on patient management. However, oral surgeons play a vital role in preoperative assessment, perioperative management, and post-operative care, thereby are uniquely positioned to contribute to prevention efforts due to their long-term patient interactions.

The proliferation of new generations of vaping products on the market presents oral surgeons with fresh challenges. It is crucial for practitioners to stay informed about these evolving risks, educating patients about potential oral and general health implications and guiding them towards informed choices.

Impact of biologics on the management of Oral Surgery patients

Ayesha Mohamed

[1]Department of Oral Surgery, Birmingham Dental Hospital, UK

Introduction:
Patients on biological therapy are a vulnerable patient cohort, and the use of biologics in medicine is on the rise. As dental professionals, it is becoming increasingly important that we are aware of this class of medications and the theoretical risks that they pose specific to the oral cavity, to ensure safe delivery of dental treatment.
Aim:
To understand the importance of shared care with the prescribing physician. To appreciate the complications of these medications on patients undergoing oral surgery procedures. To improve the confidence of dental professionals in managing these patients appropriately based on existing guidance.
Method:
The articles cited have been located following a literature search performed using two online medical databases (PubMed and Wiley Online Library).
Results:
Undesirable effects include osteomyelitis, osteonecrosis of the jaw, infection and coagulation disorders. Limited information exists regarding the dental management of patients on biological therapy. However, the literature is unanimous on the importance of shared care with the prescribing physician. For major elective procedures, the guidelines advise withholding a biologic dose and scheduling surgery based on the specific drug's half-life which may minimise post-operative infection concerns. Staging the number of extractions, consideration of antibiotic prophylaxis, and monitoring the site of treatment for healing at eight weeks post-operatively is also recommended.
Conclusion:
While these drugs are generally considered safe, they undoubtedly have potentially serious side effects. As a result, patients on biologics may need special considerations in dentistry.

Antibiotic Prescribing Practices in Non-impacted Tooth Removal at the Royal London Dental Hospital

Nouf Alshahri 1, Ms. Fleur Mumford
[1]Department of Oral Surgery, Institute of Dentistry, Queen Mary university, London, UK
[2]Department of Oral Surgery, Barts health NHS Trust, London, UK

Dental procedures, such as tooth extractions, carry the risk of postoperative complications, including infections. Dentists often prescribe antibiotics as a preventive measure. However, this practice varies among dentists and raises concerns about antibiotic resistance. Dentists in England and Wales contribute significantly to community antibiotic prescriptions. Antibiotic resistance is a global threat, with predictions of millions of annual fatalities by 2050. Evidence-based antibiotic prescription is crucial. Various guidelines, including NICE 2015 , SDCEP 2021, and FDGP 2020 provide recommendations for antibiotic prophylaxis in dentistry. These guidelines discourage routine antibiotic use for dry socket prevention and emphasize prescribing only to high-risk patients. Documentation and follow-up are essential.
This audit aimed to assess antibiotic prescribing practices in non-impacted tooth removal procedures at the Royal London Dental Hospital and identify areas for improvement.
This retrospective audit analysed data from October 2022 to April 2023 for patients aged 16 and above. Seven patients received antibiotics during non-impacted tooth removal, primarily through surgical extractions, mainly Amoxicillin for 5 days. Justification for antibiotics was often missing, with only 3 out of 7 patients receiving prophylaxis. Inadequate documentation of follow-up arrangements was noted.
The audit found inconsistencies in antibiotic prescription documentation and highlighted the need for a prospective audit to capture all instances of antibiotic prescribing. Most prescriptions were post-operative, which is less effective in reducing infections. Surveying clinicians' attitudes could offer insights into local practices. The study emphasized the importance of rational antibiotic prescribing, as only a minority of patients benefited from antibiotics. Periodic prospective reviews are recommended to refine prescription patterns at the Royal London Dental Hospital and contribute to evidence-based antibiotic use, aligning with the global imperative to combat antibiotic resistance.

Mycosis fungoides of the oral cavity: A case report

Krishantini Mahendran, Sangeetha Yogarajah, Fiona Child, Barbara Carey

Introduction

Mycosis fungoides (MF) is the most common subtype of primary cutaneous T-cell lymphoma (CTCL), accounting for approximately 50% of cases. Oral involvement is rare, with only 76 cases reported in the literature.

Aim

Here we present the case of a 62-year-old male presenting with sudden onset gingival swelling associated with spontaneous bleeding and thickening of the upper lip. Background medical history included MF Stage IB (T2b) diagnosed in 2004. He was on no regular medications. Previous MF treatments included topical skin ointments, PUV phototherapy, total skin electron beam, radiotherapy and oral bexarotene.

Method

Examination revealed right neck lymphadenopathy. Extensive erythematous plaques and growths were noted on the chest, limbs and back. Intraoral examination demonstrated pronounced gingival and labial hyperplasia extending from UR4 - UL4, associated ulceration and haemorrhagic exudate.

Results

Biopsy confirmed CD8+ CD30- CTCL. MRI and CT imaging revealed extensive bilateral gingival tissue thickening (up to 1.9cm in depth) extending into the labial mucosa. There was evidence of infiltration into the right pyriform fossa and pathologically enlarged lymph nodes. The case was upstaged to stage IVB. Radiotherapy to the oral cavity and neck (20Gy in ten fractions) and Caelyx chemotherapy was commenced.

Conclusion

Oral MF is exceptionally rare, often preceded by cutaneous disease and associated with a later manifestation of the disease and poorer prognosis. The tongue, palate and gingiva are the most common sites of involvement in the oral cavity. The diagnosis of MF in the head and neck is challenging due to lack of specificity and broad heterogeneity in clinical and radiological presentation, often mimicking periodontal disease. Prompt histopathological and immunohistochemical evaluation are imperative to avoid diagnostic delay, resulting in disease progression and increased morbidity.

Patient leaflets: AI-Powered vs Traditional – Who Wins?

Sanket Mehta, Krishantini Mahendran, Chris Sproat

Introduction

Numerous studies have demonstrated patient dissatisfaction with the information provided to them and that patients perceive patient information leaflets (PILs) to be overly complex in language and design. In this era of artificial intelligence (AI) advancement, there exists promising opportunities to leverage AI technology for the enhancement of conventional PILs, traditionally authored by healthcare professionals.

Aim

The aim of this project was to compare the effectiveness of an AI-generated PIL with our existing PIL.

Method

We employed an AI language model, ChatGPT, to generate a PIL for post-operative care instructions following dental extractions. Specific parameters, including the target reading age and desired tone, were set for the AI-generated leaflet. Over a two-month period, both the traditional leaflet and the AI-powered leaflet were randomly distributed to patients following dental procedures. Subsequently, patients were asked to evaluate and compare the two leaflets by completing a questionnaire.

Results

Forty questionnaires were completed, reflecting an average age of 34 years old. All respondents found the information presented in the AI-generated leaflet to be easy to comprehend and clearly presented with 33% reporting that it did not adequately meet their needs. Three respondents commented on the traditional PIL's provision of more detailed information, and two respondents described the AI-generated leaflet as 'child-like' in their feedback. In terms of preference, the results indicated an approximately equal split between the AI-generated and traditional leaflets.

Conclusion

In summary, our study demonstrates that the AI-generated PIL excels in terms of readability and clarity; however, it is noteworthy that a large portion of respondents expressed a preference for the traditional PIL. These findings underscore

the potential for AI to enhance traditional PILs by capitalizing on its strengths while addressing its limitations. This project provides valuable insights into the dynamic evolution of patient information dissemination within the realm of professional healthcare practice.

Service Evaluation Project Design: Anaesthesia Pathways for Mandibular Third Molar Removal at Guy's Hospital

Nicole Hasoon[1], Madeleine Averley[2]
Supporting Clinicians: Dr Chris Sproat (Oral Surgery Consultant) Dr Jessica Blanchard
Department of Oral Surgery, Guy's & St Thomas' NHS Foundation Trust, London, UK

Abstract

Rationale:

Mandibular Third Molar (M3M) extractions are amongst the most common oral and maxillofacial surgical procedures. At Guy's Hospital Oral Surgery Department, we have a team of 10 Consultants, 25 Staff Grades, 4 Registrars, and 12 Dental Core Trainees (DCTs). This team of 51 clinicians assesses approximately 800 patients on Oral Surgery Consultant Clinics each month. Many of these patients are referred by General Dentists for M3M removal. As DCTs and new members of the team, we would greatly benefit from guidance in selecting the most appropriate level of anaesthesia, whether it be Local Anaesthetic (LA), Intravenous Sedation (IVS), or General Anaesthetic (GA) for this treatment. Development of a tool to assist less experienced clinicians regarding this decision, will ensure that patients receive safe and effective care.

Background:

When planning for M3M removal and the appropriate level of anaesthesia, it is essential to consider several factors: Patient preferences, procedure complexity, medical history, dental anxiety, operating time, and the operator's experience.

Method:

Data Collection: Retrospectively collect data for 100 patients who have consented to ≥ 1 M3M extraction:

- Patient Demographics
- Medical History
- Dental Anxiety
- Procedure complexity
- Anaesthesia pathway (LA, IVS, or GA)
- Justification for anaesthesia selection

Analysis: Evaluation of current service provision using the factors as stated above.

Intention:

We plan to conduct case-based discussions to streamline treatment planning for M3M removal. Additionally, we aim to implement the use of an easy-flow algorithm to guide less experienced clinicians in choosing between LA, IVS, or GA for M3M removal. This could lead to the generation of an Index of Anaesthesia Need for Surgical M3M removal.

Conclusion:

This project will aid clinicians when planning M3M removal procedures, leading to successful surgical outcomes while maintaining patient comfort and safety.

Odontogenic Infection of the Infratemporal fossa: A rare diagnostic challenge

Alisha Paul (OMFS DCT), Adenike Bawor-Omatseye (OMFS Speciality Doctor), Julian Page (OMFS consultant)

Introduction

The infratemporal fossa (IF) is an important anatomical space that carries vital neurovascular structures within it. The formation of an abscess in the IF, particularly of odontogenic aetiology, is rare. It can pose a diagnostic challenge due its uncommon presentation and can be life-threatening with delayed treatment. We present an unusual case of IF abscess in an otherwise healthy female patient.

Aim

- To review the anatomy of infratemporal fossa
- To understand pathways of spreading infection

- To recognise signs and symptoms of spreading dental infections and the management

Method

Case report follows our investigations and management of the infratemporal fossa abscess, including details into how it was initally misdiagnosed.

Results

The patient has made a good recovery post operatively and we have made some recommendations for the post-operative care of these patients.

Conclusion

Infratemporal abscesses of odontogenic origin is rare and can be misdiagnosed. It can be a life-threatening infection and requires urgent referral to the Maxillofacial team. Thorough history, examination as well as relevant radiographic investigations are all important in prompt diagnosis and management of an infratemporal infection.

Sedation Dilemmas: The role of Remimazolam in Outpatient Departments

Laura Collins, Stacey Clough, Zahra Shehabi

Introduction

Remimazolam is a novel fast-onset and offset benzodiazepine developed for intravenous use in procedural sedation. It is a modified version of the gold standard drug for dental outpatient sedation procedures; midazolam.

The addition of a carboxylic ester allows Remimazolam to be metabolised by tissue esterases, rather than P450 in the liver like Midazolam. The Remimazolam metabolite is 300 fold less active than its parent compound, resulting in a drug with a significantly shorter half life and therefore, shorter recovery time following sedation. It also results in a drug that is safe for use in hepatically and renally impaired patients as well as prolonged infusions.

Our team at the Royal London Hospital have utilised the properties of this new drug in order to solve some common clinical dilemmas with our patient cohort. Here we present two such cases where Remimazolam was used for intravenous sedation in our outpatient department.

Aim

To share our experiences with using this novel drug and suggestions for future applications.

Method

Two case presentations including the timings of the sedation and the discussion of the clinical reasons for opting for remimazolam rather than midazolam.

Results

Positive reception from patients who have received Remimazolam in our unit, as well as positive clinician experiences.

Conclusion

More experience with this drug is needed to help develop protocols and local guidance. Consideration needs to be given to cost effectiveness of the procedure given the increased cost of the drug. However, significant gains in clinical time would likely offset this cost.

WHO Surgical Safety Checklist: A Multi-Cycle Audit

Rory Carrie; Ella Franklin; Lois Davies; Ellie Bennet

Introduction

The WHO Surgical Safety Checklist was implemented in response to surgical safety issues highlighted in the WHO 'Safe Surgery Save Lives' initiative. The Cwm Taf Morgannwg health board requires all patients to have a WHO checklist completed for all dental extractions. Prior to this audit, this was a paper form which clinicians had to remember to get, had many unnecessary data points and was filed in the patient's paper record. Due to these issues, it was infrequently and inconsistently being completed across the different clinics and between clinicians.

Aim

Ensure the checklist is being completed fully and accurately. Improve the method in which the checklist is recorded.

Method

Data was collected retrospectively by looking at appointments marked as extraction or as problem/pain on SOE. The electronic notes were assessed to see whether a scanned checklist was available before pulling the paper notes to check for a paper form. The available checklists were assessed for their accuracy and completeness and the data inputted onto a spreadsheet. Following cycle one, a simplified checklist was implemented onto SOE and linked to extractions to automatically popup when

completing treatment. The second cycle data was collected a month after the implementation of the electronic checklist. A third cycle was completed four months after. The second and third cycle data was collected in the same manner as cycle one.
Results
First cycle: 44% of records had a checklist available, of the available checklists 9% were completed with 100% accuracy.
Second cycle: 89% of records had a checklist available, 87% completed with 100% accuracy.
Third cycle: 84% checklist available, 97% with 100% accuracy.
Conclusion
The simplified, electronic checklist has greatly increased compliance with the health board's requirement to complete a WHO surgical checklist. A simple change has increased patient safety, improved appointment efficiency and reduced waste.

The wisdom of taking CBCT scans

Afnan Ibraheim
Introduction
The increasing accessibility of CBCT scans and the relatively low radiation doses possible to achieve has made them key in the management of mandibular third molars (M3M) thought to be close to the ID canal (IDC). However, many existing guidelines concede that CBCT scans should not be used routinely in the management of M3M. The European Academy of DentoMaxilloFacial Radiology (EADMFR) states "CBCT imaging of the mandibular third molar should only be applied when the surgeon has a very specific clinical question in an individual patient case". The RCS states "CBCT may be considered in carefully selected cases where the findings are expected to alter management decisions".
Aim
To assess the extent to which CBCT scans for M3M assessment change the management plan and what factors may justify CBCT scans in this context.
Method
This is a retrospective service evaluation of CBCT scans taken in the OMFS department for assessment of M3Ms over a 4-month period. Data collection included radiographic signs of proximity to the IDC on both the OPG and CBCT scans and the subsequent treatment outcomes.
Results
69% of these CBCT scans confirmed a high risk of ID nerve damage while 31% showed no contact between the M3M and the IDC. Of these 31% of "low risk" CBCT scans, all preceding OPGs showed one radiographic signs. Of the 69% of "high risk" CBCT scans, 85% of preceding OPGs showed at least two radiographic signs (e.g. loss of cortication and darkening of the roots).
Following CBCT, 82% of M3M were extracted, 10% were not treated and 8% underwent coronectomy.
Conclusion
Arguably, these CBCT scans did not alter the management plan as majority of M3M were extracted. There has been no evidence of post-operative paraesthesia with any of these cases. This may reflect this cohort of patients' choice or the anecdotal variations in numbers of coronectomies carried out in different units.
The results also suggest that the presence of 2 or more radiographic signs of a "high risk" M3M on an OPG may be more indicative of a true close relationship between tooth and IDC, which is supported in existing literature. This may be a factor to consider when justifying a CBCT scan.

Estlander-Abbe Flap: Surgical management of Lip Squamous Cell Carcinoma

Jathurshe Vigneswaran, Surabi Tharmapathy, Mr Jayanth Kunjur
Introduction
The Abbe Flap was coined by Dr Robert Abbe in 1898[1], involving the rotation of a full-thickness portion of the lower lip, which traditionally includes the skin with the vermillion border, orbicularis oris muscle based on the right or left inferior labial artery. This technique is used in reconstruction of the defects of one third to half of the upper lip. The Estlander-Abbe flap (reverse Abbe Flap) is taken from the upper lip based on the superior labial artery to reconstruct lower lip defects.
Aim
Aim: To raise awareness of the Estlander-Abbe Flap technique and to explore its advantages and disadvantages.
Objective: To discuss the surgical management of squamous cell carcinoma (SCC) of the lower lip.
Method

We present a 66-year-old man with a six-month history of a non-healing 'cigarette burn' of the lower left lip measuring 1.5 by 1cm. Excisional biopsy of the moderately differentiated pT3N0M0 SSC of the lower lip was performed under general anesthetic. A full-thickness Estlander-Abbe flap was elevated and designed with a width approximately half that the size of the defect, allowing it to rotate into the defect with minimal tension.

Results

The reconstruction was completed without complications. Despite a minimal period of microstomia till the flap was released at 8 weeks, the patient was very happy with the outcome and the aesthetics after resection and reconstruction.

Conclusion

The ultimate goal in reconstructive surgery for lower lip is to maintain the aesthetics without loss of function. To this extent one should not forget some of the classical techniques of reconstruction such as an Abbe-Estlander flap. Careful planning allows for accurate execution with minimal disruptions to aesthetics and functions of the lip musculature. Prognosis and location of the lesion are critical factors to consider when choosing which established technique to use for reconstruction.

Literature Review of Post-Pandemic Dental eLearning from the Students' Perspective Worldwide

Dr Victoria Mellish

Introduction

Universities across the World had to rapidly adapt to the COVID-19 restrictions. Although online learning was being utilised in dental education prior to the pandemic, educators accelerated the digital transformation of teaching to meet with lockdown restrictions. With an abundance of teaching methodologies, analysis of the students' perspective is vital to ensuring student engagement with curricula.

Aim

To assess student perspectives on dental education in the post-pandemic era, with a focus on improving eLearning effectiveness.

Method

A literature review of dental education articles worldwide, specifically examining student perspectives on the changes brought about by the pandemic.

Results

Articles from all inhabited continents were reviewed, where the majority used online surveys with substantial sample sizes averaging over 200 students. Many studies noted difficulty with online connectivity and access to digital resources, leading to stress and anxiety among students. Reliable digital resources led to a positive reception of blended learning, but concerns were raised over the quality of eLearning and the acquisition of clinical skills. Interaction with staff and collaborative working was highly valued, with traditional methodologies of dental education being the preferred option for practical and clinical skills training. The flexibility offered by both synchronous and asynchronous online lectures was the key advantage for students, however it was recognised that student motivation and engagement varied greatly. Students expressed a desire for more interactive resources, including procedure videos and micro-learning through apps.

Conclusion

Online dental education needs to be managed effectively in order to enhance the overall learning experience; these results advocate for a less-is-more approach, with a focus on interaction. There is a need for educators to be mindful of how students now use smartphones and online tools for learning, and a need for Institutional support in providing effective online education.

Rise of the machines?

Katie Dolaghan, Jamie Toole

Introduction

Recently there has been a rising interest in generative AI and how it might affect our lives. AI is used increasingly in the fields of radiology and pathology to improve the efficiency of workflow. There are growing concerns that AI may be able to replace humans in many roles across society.

Aim

The aim was to assess how well freely available AI was able to answer questions on diagnosis and management of a range of hard and soft tissue diseases and compare them to each other. Could AI allow us to reduce the amount of information that clinicians need to be taught.

Method

A series of questions on hard and soft tissue diseases was provided to both BARD and ChatGPT 3.5. The answers were marked as correct or incorrect based on the presence of incorrect information as well as being scored using a standard mark scheme. The accuracy and relevance of the information was noted. We assessed the answers for any dangerous actions that were suggested.

Results

ChatGPT got more questions correct than BARD in both the hard and soft tissue sections. ChatGPT also scored higher overall than BARD. The content in the answers from ChatGPT were judged as being more precise and detailed when compared to the answers provided by BARD. Neither system produced any answers that were judged to be dangerous.

Conclusion

There is clearly a difference between the utility of different AI software. ChatGPT produced more correct answers compared to BARD but would require a clinician to know which suggestions would be best to use for a particular patient. For example, both systems suggested antibiotics when they would have been inappropriate. In the future AI will probably be able to help clinicians with decision making but it cannot currently replace the benefits of a knowledgeable clinician.

An unexpected cause of orofacial pain

Sarah Jadun, Mariam Al-Sarraj, Dapo Akintola

Introduction

Orofacial pain is one of the most common reasons for presentation to the dental clinician. Aetiology is variable and mostly due to odontogenic causes, however in approximately 1% of cases, intracranial tumours may be the underlying cause.

Aim

Discussion of case presentation of Glioblastoma mimicking orofacial pain and stroke symptoms. Very few cases in the literature have demonstrated facial pain and stroke symptoms secondary to Glioblastoma.

Method

A 54 year old male patient presented to the acute dental care (ADC) department at Kings College Dental Hospital, complaining of continuous pain in the upper left quadrant prior to and following extraction of the UL7 at his local dentist. Clinical and radiographic examination revealed a well healing UL7 socket, with no signs of associated pathology. Incidentally a compound odontome was discovered in the UL8 region. Differential diagnosis included suspected exposure of the odontome to oral microbes following extraction of the UL7 resulting in low grade infection, and the patient was listed for surgical removal of the odontome.

Results

Upon attendance to the surgery appointment, the patient appeared to be incoherent. The attending oral surgeon found that the patient's behaviour seemed bizarre, and that he did not appear to have capacity related to consent for the procedure. The patient was sent to the accident and emergency department, as a cerebrovascular event was suspected. From there the patient was referred to Neurology, and further imaging revealed left temporoparietal Glioblastoma, IDH wild type, CNS WHO grade 4. Management included significant chemotherapy and tumour debulking surgery.

Conclusion

The above case highlights the importance of thorough history taking, clinical assessment and overall holistic approach in patient management. Other differential diagnoses for facial pain, including spacy occupying lesions and tumours must be considered and ruled out.

A quality improvement project: Improving oral health in OMFS patients

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Introduction:

Almost a third of the adult UK population seek dental care only when they have acute problems and frequently consult healthcare professionals other than dentists.

Given the current dental crisis, what is the role of OMFS clinicians have offering long term preventative advice?

Aims:

Evaluate the advice given on discharge after admission and treatment for dental abscess (adult and children)

Evaluate clinician perceptions of dental health advice
To standardise and improve the written oral hygiene advice given on discharge
Methods:
We collected data from Northwick Park Hospital OMFS unit, identifying every patient admitted for dentally associated abscess in a 60 day period and evaluated:
Treatments provided (incision and drainage, extraction, local anaestesia, general anaesthesia, intravenous antibiotics)
Discharge advice and long term preventative strategies and discharge medications were evaluated
We sent out a clinician survey about perceptions about role in providing dental health advice
Interventions
Teaching session on dental public health
Discharge templates with oral health instruction and information sources
Resources about oral disease prevention in a shared drive on the trust computers
Results
80 inpatient were identified, median length of admission 2 days.
Only two thirds were advised to seek the urgent care of a general dental practitioner.
None were advised of the benefits of fluoride toothpaste, appropriate brushing technique and interdental cleaning
Most clinicians believe it is not their role to provide dental advice.
After our intervention, more clinicians identify the long term benefit of offering early preventative advice.
Discharge summary advice has become more standardised, with more information about dental health
Conclusion
Dental related facial abscesses are a significant proportion of admitted patients under OMFS and are largely preventable.
Hospitals can provide better information to support patients in improving their risks of further admission and dental treatment

The AI Revolution - Balancing Technological Advancements with Human Insight - A Case

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Introduction: The rise of Artificial Intelligence (AI) and digital advances in medicine and dentistry signal a new aspect to healthcare, bringing forth unprecedented possibilities in diagnosis, treatment, and patient care in Oral and Maxillofacial Surgery (OMFS). While these innovations can produce enhanced efficacy, the irreplaceable value of human intuition, knowledge, insight, and holistic understanding must not be ignored.

Aim: This case highlights the importance of integrating AI and digital advances with human expertise and utilising technology an adjunct as opposed to a replacement. The need to maintain the human element in clinical assessments and decision-making processes is spotlighted by this case - illustrating the importance of human intervention alongside technological aid.

Method: This case involves a 45-year-old female with a 3-year history of recurrent, unexplained facial swelling, this presentation illustrates the crucial role of a human and despite multiple AI-driven investigations including an ultrasound scan, MRI scan and, and CT scan reported with 'no abnormalities', persistent human insight led to the identification of an anomaly in a standard OPG, displaying abnormalities in the right-sided maxillary sinus.

Results: The re-evaluation of images and continuous attention to the patient's narrative unveiled evidence of mucosal thickening and abnormalities, necessitating further urgent investigations. This case emphasises the indispensable role of clinical examination, thorough review of images, and consideration of the patient's history demonstrating that current technological advancements should complement, not replace human expertise.

Conclusion: In the evolving landscape of OMFS, where AI and digital technologies are revolutionising healthcare, maintaining the balance between technological innovation and human insight is crucial. This case highlights that while AI can augment our capabilities, knowledge, empathy, and comprehensive understanding inherent to humans are pivotal for optimal patient care and clinical outcomes, reminding the healthcare community that technology should be an aide, not a replacement, to the humanisation of healthcare.

Innovation in Dental Education and Career Development: Integrated Care Dental Programme

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The advancement of dental education and professional growth is paramount to addressing the existing inequities in dental access and recruitment and retention challenges. In the East of England, the success of the Integrated Care Dental Programme (ICDP) has focused on elevating early career dentists' development, skills and exposure, especially in regions grappling with dental access concerns.

This programme aims to empower early career dentists by offering a blend of practical experience and career development opportunities EoE enhancing their proficiency in NHS primary dental care, and development in disciplines such as OMFS, paediatrics, restorative and emergency dentistry, and project development.

Method:

The ICDP facilitates early career dentists to provide NHS dental care in primary care for three days a week and engage in two days of placement opportunities uniquely tailored to individual needs. These placement opportunities have included OMFS secondary care institutions including Norfolk and Norwich University Hospital, James Paget University Hospital, and Addenbrookes Hospital.

Results:

Now in its 4th cohort, the programme has triumphed in securing funding from the NHSE training and workforce directorate, equating the salary for the participating dentist to that of DCT1. It has achieved positive outcomes including the retention of local dentists, the treatment of thousands of patients within NHS dentistry and the placements and career development prospects associated with this programme have facilitated enhanced experience in disciplines such as oral surgery, restorative dentistry and emergency dentistry.

Conclusion:

The ICDP signifies innovation in education and career development, through a unique programme for early career dentists to combine integrated hands on-on experience while addressing dental access and recruitment concerns. This innovative pilot has highlighted challenges while supporting professional growth and enhancing dental service delivery, especially in areas with critical access issues, thereby contributing substantially to the broader objectives of dental health equity and accessibility.

Improving Oral Surgery Learning Opportunities for Dental Core Trainees

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Introduction

Six DCTs are welcomed into the Oral Surgery department each year. The national DCT curriculum outlines the clinical achievements of 24 supervised learning events (SLEs) for successful completion of the placement. Outside of the number of SLEs, minimal guidance exists as to what these assessments should be focused on in order to demonstrate learning and competence in the management of common oral surgery conditions.

The need to provide more structure to the DCTs' placement through formative assessment was identified to ensure safe progression and clinical skill development.

Aim/Objectives

The aim of this project is to maximise the DCT learning opportunities within our department and to establish relevant learning outcomes for the year, through the development of "core" SLEs to be achieved in order to increase confidence and competency in a range of oral surgery skills.

Methods

A focus group took place with the outgoing group of DCTs at the end of their placement to discuss their experience in completing SLEs and to introduce the idea of 12 "core" SLEs.

Following discussion with clinical supervisors, 12 "core" SLEs were identified based on conditions the DCTs will most commonly manage.

The SLE requirements were introduced to the new cohort of DCTs during their induction and progress will be monitored via the e-portfolio.

Results

The focus group highlighted that DCTs would have found more SLE guidance useful to maximise their learning opportunities.

All current DCTs are making progress against the "core" SLEs and have met with their educational supervisors to discuss their personal development plans.

Further feedback from the DCTs will be sought after 3-months of their placement.

Conclusions

Both DCTs and clinical supervisors have found the SLE guidance helpful and feel more engaged in the process. I will continue to reflect on this project throughout the remainder of the DCTs' placement.

Visionary Approach: Should Dental Core Training Include More Ophthalmology?

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Introduction: Oral and Maxillofacial Surgery (OMFS) Dental Core Trainees (DCTs) who are often dentally qualified are regularly exposed to various trauma cases including orbital floor fractures, lacerations, and potential ophthalmic emergencies. Given this exposure, it is crucial the DCT curriculum equips them with the skills and knowledge required to confidently manage and understand ophthalmic related cases. Therefore, fostering an environment to support interprofessional education and integrated care.

Aim: The aim of this project is to establish the baseline knowledge and confidence OMFS DCTs have in relation to the management of basic ophthalmology scenarios. It also explores their exposure to basic ophthalmic teaching and demonstrates the need for interprofessional education to empower interdisciplinary patient care.

Methods: A survey was conducted amongst a sample of East of England DCTs focusing on the extent of their exposure to ophthalmology teaching and their understanding of the specialty. The survey also explored their confidence in managing and discussing ophthalmology related cases within OMFS. This was to identify the potential need for interprofessional education and working within the DCT curriculum.

Results: Data revealed the potential need for additional ophthalmology education and exposure within the OMFS DCT curriculum to support dentally qualified trainees in developing enhanced understanding in the management of trauma cases requiring ophthalmology intervention. This can aid interprofessional working to enhance patient care.

Conclusion: The evidence proposes a requirement for a more enriched and integrated curriculum that can be enhanced through the development of interprofessional educational activities which can combine surgical specialties of the head and neck within medicine and dentistry. This can support the development of DCTs to enhance confidence and competence to ensure the trainees are well equipped to navigate the complexities that may be encountered in OMFS posts.

OMFS DCT – Does it help build clinical confidence? Self-reported perception of increase in confidence over a year as an OMFS DCT in Bradford

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Introduction

Following foundation training, many dental graduates will undertake at least one year of dental core training, a majority of these posts in oral and maxillofacial surgery (OMFS) units.

This year enables dental core trainees (DCTs) to develop new skills, work as part of a team and manage a range of patients, including those undergoing major surgery.

Aims

The aim of this study was to explore the experience and level of confidence of DCTs prior to starting in an OMFS unit in a busy district general hospital (DGH) and to compare their level of confidence at the end of their DCT year.

Method

Over the last couple of years, each DCT starting at Bradford Teaching Hospitals has completed a questionnaire assessing their level of confidence with regards to various OS/OMFS surgical procedures.

Towards the end of their DCT year, they complete the same questionnaire again.

Subsequently, both questionnaires were compared and analysed to assess the perceived change in the level of confidence of OMFS DCTs.

Results

The results show a significant increase in the level of confidence in all areas of OMFS activity that a DCT would engage in.

The increase in confidence was also noted for various oral surgery procedures such as suturing or surgical removal of teeth.

Conclusion

This study highlights the immense benefit of carrying out an OMFS DCT post regardless of what career is chosen following this.

Although some of the skills will rarely be used in other specialty training pathways or general practice, many skills are transferrable and there is no measure for the value of clinical acumen that this confidence creates in trainees. Additionally recognising lesions, managing bleeding sockets, incising and draining a dental abscess are invaluable skills for any dentist and will benefit them and their patients in their future career.

A Tale of Two "In Situs"

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Oral Mucosal Melanoma (OMM) accounts for 2% of melanomas and circa 0.5% of oral malignancies. It usually affects the hard palate and maxillary gingivae. This has a high rate of metastasis which alongside the complexity of oral sites contributes to a poor prognosis.

OMM are usually painless and grow quickly leading to late diagnosis that may account for a 5-year survival rate of 15-20%.

We present two differing outcomes for patients diagnosed with similar palatal Melanoma In-Situ (MIS), a potential precursor to OMM.

Method

Case A, a female with a 1-year history of burning sensation to her palate. She presented with a diffuse pigmented patch on the palate which on biopsy was proven MIS. She had surgical resection and immunotherapy.

Case B, a male with asymptomatic pigmentation to the palate. This was biopsied and proven to be MIS. Later re-biopsy showed amelanotic melanoma requiring further surgical resection.

Despite early pre-malignant diagnosis and surgical excision in both cases, Case A has completed restorative rehabilitation, manages well with a small palatal defect and has no malignant transformation 2 years post MIS.

Case B developed an invasive malignancy and systemic metastases within 18 months leading to death.

Conclusions

- MIS is a rare oral pre-malignancy that can progress to OMM which is aggressive and prone to rapid metastasis.
- The aetiology of OMM is complex and remains poorly understood.
- Early diagnosis of oral melanoma relies upon vigilant systematic oral examination and review with a high index of suspicion for re biopsy on clinical change.
- These cases highlight the difficulty in diagnosis and management of MIS and OMM. Surgery remains the primary treatment modality alongside neck dissection for proven metastatic disease.
- Further studies are required to optimise outcomes for these rare cases but progression of MIS to OMM as shown here is not clear

An Evaluation of GDP Two Week Wait Referrals

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Introduction

A large number of two week wait (2WW) referrals are received each month to the Oral and Maxillofacial Department at Queen Alexandra Hospital from general dental practitioners (GDPs) and there is a lack of consistency as to the clinical information provided in the referral letters.

This project looked at the volume of 2WW referrals received from GDPs over 1 year. The quality of the referrals was assessed and the patient outcomes were followed.

Aim/Objectives

To identify the volume of 2WW referrals received

To evaluate the quality of the 2WW referrals

To review patient outcomes following assessment on the 2WW pathway

Methods

Retrospective data was collected from the electronic 'REGO' referral system.

The number of 2WW referrals and referring practices were recorded between March 2021 to May 2022.
One month was analysed in further detail. Referrals in May 2022 were reviewed against a proposed 'gold standard'.
Results
Between March 2021 and May 2022 a 1/4 to a 1/3 of the overall monthly referrals were 2WWs by GDPs from 90 different practices.
In May 2022, 77 2WW referrals were received. 11% provided no clinical descriptors. Lesion history was not consistently documented and clinical photographs were only provided in 41% of referrals. 26 patients had a subsequent biopsy; 1 patient was diagnosed with an SCC, 1 patient was diagnosed with a BCC and 24 benign lesions were diagnosed.
Findings were presented to the department and to commissioning teams. Both a webinar and GDP shadowing opportunities on 2WW clinics have been proposed.
Conclusions
There is significant variability in the quality of 2WW referrals received from GDPs, resulting in challenges triaging referrals and inappropriate 2WW pathway use. The introduction of referral guidance has resulted in improved referrals and clinical photographs being consistently included.

The Thoughts of UK Dentists on Varying Methods and Agents Used to Provide Local Anaesthesia for Mandibular Molars

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Introduction: There are various methods to administer local anaesthesia (LA) in dentistry. This study aimed to investigate the current practice and thoughts of UK dental practitioners regarding their selection of LA for mandibular molars via an online survey.
Materials and Methods: Practicing dentists in the UK were approached through social media groups online, inviting them to complete a virtual questionnaire using the Jisc Online Surveys platform. Data were analysed primarily through Microsoft Excel. Further analysis was carried out using the chi-squared test to investigate whether post-graduate training had an effect of the selection of LA, and thematic analysis for qualitative data.
Results: A response rate of 95% was obtained. The overwhelming majority of participants had some form of post-graduate training, yet there was no difference in the choice of LA between those with and without post-graduate training. Nearly all participants were taught the inferior dental block (IDB) as the gold standard technique for mandibular molars as an undergraduate, and only 2 participants were unaware of giving Articaine infiltrations to avoid an IDB. The commonest LA technique for routine clinical scenarios on mandibular molars was the IDB followed by Articaine infiltrations. Most candidates had positive views on Articaine, including it being effective, rapid and useful to negate the need for an IDB.
Conclusion: The IDB remains the commonest injection method for lower molars. Post-graduate training has no significant effect on the selection of LA. UK Dental schools should encourage the use of Articaine infiltrations as the first port of call for particular circumstances like paediatric or anxious patients, due to improved patient comfort. Dentists generally have positive views on Articaine as an anaesthetic agent.

NICE TIMING: Distal cervical caries, an Oral surgery

Kathryn Russell

Restorative interface Distal cervical caries (DCC) on lower second molars (2M) typically presents late and has a poor prognosis. It is most associated with mesioangularly impacted mandibular third molars (M3M). Clinical visualisation of 2M DCC is hindered by the presence of the impacted M3M and delayed diagnosis results in 38% of affected 2Ms requiring extraction, with the remainder needing complex restorative/endodontic treatment, limiting the tooth eventual lifespan. NICE guidance issued in 2000 recommended discontinuing routine prophylactic removal of pathology-free impacted third molars in the NHS. However, more recent 2020 RCS guidance advocated for a more holistic approach. This case report features a 50-year-old male and highlights the complications associated with the retention of M3Ms, the complexity of treatment required to manage 2M DCCs and the importance of a holistic and tailored approach. The patient initially presented to primary care with lower left quadrant pain. Establishing a clear pain history was complicated by odontogenic pain on a background of neuropathic pain stemming from the patients underlying multiple sclerosis. Various special tests supported a definitive diagnosis of LL7 DCC with

symptomatic irreversible pulpitis, associated with the mesioangularly impacted LL8. Immediate pain management involved LL7 caries excavation and pulp extirpation. Long term treatment included the removal of LL8 under sedation and definitive root treatment and coronal restoration of the LL7. Upon review, the patient had lost the right sided lower second and third molars in a similar scenario. The retention of LL7 reduced the need for a removable prosthesis, which the patient had previously struggled to tolerate due to MS induced muscle spasms and xerostomia. By acting early and devising a bespoke treatment plan, the patient retained the LL7 and holistic patient care was achieved.

A rare presentation of intra-oral mucosal melanoma in a young person- A case report

Jennifer Kelly, Aghiad Alsabbagh, Jayanth Kunjur

Introduction

A case report discussing a rare case of a fit and well 22 year old female diagnosed with oral mucosal melanoma in-situ found in the interproximal papilla of the upper central incisors.

Oral mucosal malignant melanoma is rare, accounting for 0.5% of oral malignancies and 1% of malignant melanomas. The most common intra-oral site for oral mucosal melanoma in-situ is the hard palate and maxillary papillae. Historically, this malignancy has a poor prognosis, with a 15% survival rate at 5 years and a high chance of distant metastasis.

Aim

The aim of the presentation is to raise awareness of OMMIS as a possible differential diagnosis of pigmented and exophytic lesions within the mouth.

Method

This case report takes us through from initial presentation of the patient, investigations, surgical planning and initial follow up. The patient is a casual recreational drug user however has no significant medical comorbidities, is not on any medications with no allergies.

Results

The patient presented with a 10x10mm gingival overgrowth that had the clinical appearance of a fibrous epulis.

Incisional biopsy of the area confirmed in-situ melanoma, with extensive infiltration of the subepithelial stroma by a population of mixed epithelioid and spindle cells and positive immunohistochemistry staining with S100 and Melan-A.

Further mapping biopsies confirmed the site of melanoma to extend with the main focus at the papilla between the central incisors to the marginal gingiva of the canines bilaterally, as well as an area beyond the incisive papilla on the hard palate.

Imaging did not reveal any regional or distant metastasis.

The patient was treated with complete surgical resection and adjuvant systemic therapy.

Due to the poor prognosis, surgical reconstruction was limited. In the first instance, conservative management with an obturator followed by re-assessment with the possibility of further surgical reconstruction in future has been planned.

Conclusion

This case has highlighted that, although extremely rare, oral mucosal melanoma in-situ (OMMIS) can occur in a patient of any age, without any significant medical history or risk factor.

Necrotising Fasciitis: a rare and life-threatening complication of odontogenic infections

Jennifer Kelly, Afnan Ibraheim, Jayanth Kunjur

Introduction

Necrotising fasciitis is a rare and life-threatening infection, resulting in considerable tissue necrosis and formation of gas in the fascia and deep tissues. It can be a rapidly spreading disease leading to septic shock and multiple organ failure. It is commonly a polymicrobial and bacterial infection.

Cervical necrotising fasciitis (CNF) secondary to odontogenic infection is relatively rare and not widely reported. When involvement of multiple tissue planes and gas formation is confirmed on imaging such as CT, prompt and aggressive treatment including tissue debridement and broad-spectrum antibiotics is key.

Whilst some patients such as HIV positive or diabetic patients are more predisposed to such escalations of odontogenic infections, it may be seen in otherwise healthy patients. This is discussed further in this case report.

Aim

- To discuss the presentation and management of a severe case of CNF secondary to an infected LL6 tooth.
- To increase awareness of this rare yet potentially life-threatening dental complication and allow for prompt recognition

Method

This is a descriptive study of a severe case of CNF seen in a fit and well patient. The patient had a 48 hour history of rapidly increasing neck swelling, with no associated dental pain or previous dental infection from the carious tooth. He was septic on presentation, sweaty and short of breath, with a large bilateral submandibular and submental swelling causing a 'hot potato' voice and dysphagia. There was redness and erythema extending down to the sternum.

CT neck showed a large fluid density extending from the floor of the mouth, into the submental region and along the superficial planes in the upper anterior aspect of the neck, containing multiple air locules.

Results

Treatment was a combination of surgical intervention and broad spectrum IV antibiotics.

Necrosis of the submental tissues was visibly spreading during the operation. Removal of the infected tissue, extraction of the tooth and drainage of the abscess was required. Following this, the patient spent the night in ITU intubated to ensure this airway was maintained and planned return to theatre for further debridement and drain placement the following day.

He was stepped down onto the ward for administration of IV antibiotics.

With the exception of scarring, the patient had no long term complications and has made a full recovery.

Conclusion

This case report highlights that seemingly fit and well patients can become systemically unwell in a relatively short period of time.

Although very rare, clinicians should look out for signs and symptoms of CNF and understand the necessary treatment and need for urgency.

A Clinical Audit of Dental Assessments in Head and Neck Oncology Patients

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This audit places a spotlight on the critical significance of dental health within the realm of comprehensive care for head and neck oncology patients, with a specific and heightened focus on the mitigation of osteoradionecrosis (ORN) risk. Collaboratively conducted by the Restorative Dentistry and Oral and Maxillofacial Surgery teams at Oxford University Hospitals Trust, the primary objectives are to assess three key facets:

a) the frequency of Orthopantomograms (OPT) requests,

b) the timing of patient referrals for dental assessments, and

c) the extent to which guidelines for scheduling dental extractions at least 10 days before initiating radiotherapy, with a special emphasis on heightened ORN risk awareness, are adhered to.

In terms of methodology, this audit undertook a retrospective analysis of electronic records encompassing 100 head and neck oncology patients who received treatment across a range of medical specialties, including OMFS, ENT, Plastic Surgery, and Oncology. The audit criteria included evaluating the promptness of OPT requests at the time of referral and the adherence to guidelines recommending dental extractions within the stipulated 10-day window before commencing radiotherapy, all while taking into consideration the patient's susceptibility to ORN.

The results stemming from this audit unveiled a 72% compliance rate in OPT requests at the point of referral, which underscores opportunities for improvement in the coordination of care. Encouragingly, the audit demonstrated a 93% compliance rate in scheduling dental extractions within the recommended 10-day period before radiotherapy initiation. This achievement bears immense significance as it substantially reduces the risk of ORN.

In summary, this collaborative audit unequivocally underscores the pivotal role that finely-tuned dental assessment practices play in the realm of head and neck oncology patient care. While there is room for enhancement in the timing of OPT requests, robust compliance in the scheduling of dental extractions promises a notable reduction in ORN risk and the mitigation of treatment complications. Consistent adherence to these protocols stands as an indispensable component in the quest to elevate patient care standards and outcomes.

The authors of this collaborative audit hereby declare the absence of any conflicts of interest associated with their work.

A rare case of Tenosynovial Giant Cell Tumour of the TMJ with Chondroid Metaplasia

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Introduction: Tenosynovial Giant Cell Tumours (TGCT) affect joints, tendons and synovial sacs throughout the body and are known to be diffuse or localised from mesenchymal origin. Typically, it is known to affect joints of long bones; rarely, it affects the temporomandibular joint (Carlson, 2017). They are locally aggressive yet benign in nature, more commonly affecting women in their third and fourth decades. Moreover, they can present with chondroid metaplasia.
Aim: To outline the differential diagnoses and management of slow growing TMJ tumours and to increase awareness of TGCT of the TMJ with Chondroid Metaplasia.
Objective: To discuss the patient journey from referral to post operative review.
Methods: A 38-year-old Caucasian lady attended the Oral and Maxillofacial Department with a hard palpable lump over the left temporomandibular joint, which had been slowly growing for the last 6 years. Following a series of CT and dynamic MRI scans, the patient underwent resection and prosthetic replacement of the left TMJ. A combined modified pre-auricular and trans-parotid retromandibular incision were used in the approach and the patient was warned of increased risk of weakness of the facial nerve (Al-Kayat and Bramley, 1979).
Results: Histologically, the tumour mass composed of ovoid mononuclear cells admixed with occasional osteoclast-type giant cells and dense fibrovascular tissue partially lined by synovium. Distinct areas show chondroid metaplasia forming nodules of hyaline chondroid matrix. Haemosiderin deposits are seen focally within the tumour. Immunochemistry investigations showed that the tumour cells were negative for H3 K36M, ruling out chondroblastoma (Mu, 2021). She made a full recovery, maintaining normal mouth opening and function of her TMJ.
Conclusion: The patient was pleased with the progress following her operation. 8 months post operatively she has minimal scarring and good function of her facial nerve apart for some weakness of the temporal branch.

Is There a Role for FTY720 (Fingolimod) to Play in Alveolar Ridge Healing?

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[2] DDS Candidate, University Of Western Ontario.
Objective: To evaluate the potential of FTY720 as a modulator for alveolar bone healing, and its resultant impact on bone volume.
Methods: A comprehensive literature search was performed in Google Scholar and Medline., using the subject terms: 'FTY720', 'Fingolimod, Fingolimod AND alveolar ridge healing', 'Fingolimod AND alveolar ridge preservation', 'Fingolimod AND macrophage'. 125 articles were identified, and selection involved the exclusion of study duplicates, analysis of study titles and abstracts, full-text analysis, and other features of the articles obtained during the literature search. 33 studies met the inclusion criteria and 92 were excluded as they were not related to FTY720 effect on bone healing. Of the 33, 7 were included for the one-way ANOVA test as they had quantitative data of FTY720 effect on bone volume available.
Results: The results of the ANOVA test comparing the effect of the treatment with just the vehicle alone versus the vehicle plus FTY720 on bone volume across the data sets from the 7 studies showed a significant difference. The f-ratio value was 5.4135 and the p-value was .038299. The significance of the results at $p < .05$ indicates a significant difference in bone volume between only when vehicle is used versus when vehicle plus FTY720 is used.
Conclusion: FTY720 may have a positive effect on bone healing, but the results were inconsistent across the different studies and time points. Further research is needed to fully understand the potential mechanism of FTY720 in improving bone healing and to determine the most effective dosing and administration methods in vivo.

Case of an Incognito Lump

Emma Schofield, Jashme Patel, Cathy Bryant
Introduction
Multiple myeloma is a blood cancer affecting the plasma cells. Proliferation of the plasma cells crowd the normal cells in the bone marrow and causing osteolytic lesions. In 13% of cases extramedullary myeloma (growth outside of the bone marrow) occurs. Patients in remission following treatment may be offered stem cell transplant. Prior to stem cell transplant patients are referred for dental clearance to reduce the risk of complications from dental infections when the patient is immunosuppressed. Stem cell transplants in patients who are in remission offers significantly increased overall survival compared with patients who are not in remission.
Aim

Present an interesting case of a patient who was diagnosed with relapse of myeloma following a dental assessment.
Method
Patient information: 61 year old gentleman in remission from myeloma presented for dental assessment at King's College hospital prior to stem cell transplant.
On examination a lump was detected on his left mandible which had increased in size over the last 1-2 weeks. On examination there was a 2x2cm lump on the ramus of the mandible. This was adjacent to an edentulous region of his LL6. It was fluctuant, non tender and had a 'bluish' tinge. Differential diagnoses included residual cyst and myeloma.
Results
Management and Outcome: OPG showed showing a radiolucent area in the region of the missing LL6. CBCT was taken but was inconclusive as to whether lump was dental in origin. Fine needle aspiration was performed which identified malignant plasma cells within the lesion. This resulted in his myeloma status being reviewed and an active area of myeloma was found in the mandible.
Conclusion
Prompt investigation by the dental team and identification of active myeloma in a patient thought to be in remission allows the patient has the appropriate treatment for their condition.

Standing the Test of Digitisation: Resiliently Engineered LocSSIPs Promoting Safety

Emma Schofield, Chivani Tailor, Harjit Tagar
Introduction
LocSSIPs were introduced to promote safe practice. Engineered with resilience, they allow teams to operate safety across periods of change and disturbance. Proactive approaches to safety management encourages teams to actively focus on things going right, rather than trying to avoid them going wrong.
Widespread adoption of electronic clinical records across NHS Trusts inevitably triggers a large-scale transition period, impacting all team members. Switching from paper to digital records may disrupt established workflows within high patient volume working environments, and this, often coupled with heightened stress, may create an environment conducive to errors.
Well-developed LocSSIPs promote the Safety-II approach and can enable clinical teams to adapt to the change in working conditions and continue to succeed in keeping patients safe. The system encourages a collaborative approach to safety which allows greater resilience within the working environment.
Collection of data through regular audits can contribute to a proactive approach to safety by highlighting areas which may predictably be affected by the future changes.
Aim
To ensure LocSSIP protocols are upheld during the transition to digital records
Method
Retrospective data collection of LocSSIP records were undertaken for patients receiving treatment in the Oral Surgery Department within a one-week period.
Results
Our analysis revealed an overall small reduction in recorded LocSSIP compliance. No adverse safety events have occurred during the first stage of digitisation.
Conclusion
The resilience of our LocSSIP system has enabled the clinical team to keep patients safe during an initial period of disruption. Using the data collected we can predict the areas where compliance to the LocSSIP protocol may be affected during digitisation and prepare the team to respond to these. Maintaining LocSSIP protocols and empowering all team members to contribute are important factors in ensuring high-quality healthcare delivery.

The Surgical Management of Primary Failure of Eruption- A Case Report

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2- Orthodontic Department, Newcastle Dental Hospital
Introduction
Primary failure of eruption (PFE) is a rare occurrence affecting approximately 0.06% of the population. Whilst the aetiology is

uncertain, it has an increased prevalence in those with a familial history of PFE or rare variants of the parathyroid hormone 1 reception gene (PTH1R).

Aim/Objectives

An 11-year-old girl was referred for orthodontic treatment. Clinical and radiographic examination demonstrated a submerged lower right first permanent molar (LR6) in the absence of obstruction or ankylosis, and subsequent mesioangular tipping of the lower right second permanent molar (LR7). Given the presentation, this was diagnosed as PFE

This case report reviews the novel management of a patient with PFE.

Methods

This patient required joint input from Orthodontics and Oral surgery. A cone beam computed tomography scan demonstrated a mesioangular impaction of the LR6. There was no evidence of ankylosis, with the inferior dental canal lingual to the LR6 apices.

As orthodontic extrusion of LR6 would increase the risk of impaction or ankylosis, a surgical approach was requested to facilitate space closure with existing teeth.

Risks included mobility, damage, or loss of the adjacent teeth, temporary or permanent altered or loss of sensation to the lip/ chin/ surgical site, and mandibular fracture. Following discussion, surgical removal of the LR6 and placement of guided bone regeneration under general anaesthetic was carried out.

Results

The patient had an uneventful postoperative recovery. She was subsequently managed by the orthodontic department where she received upper and lower fixed appliances and subsequent Essix retainers.

Conclusions

Patients with PFE are often complex requiring a multidisciplinary approach. The above case was managed with surgical removal and bone grafting to facilitate space closure and subsequent orthodontic involvement.

Advanced Plasma Rich Fibrin (A-PRF) in management of MRONJ: A promising approach

Saffa Dean, Laura Collins, Ravi Rathod, Eleni Besi

Introduction

Patients taking anti-resorptive or anti-angiogenic medication are at risk of developing Medication Related Osteonecrosis of the Jaw (MRONJ). This poster explores the efficacy of Advanced Plasma Rich Fibrin (A-PRF) as a promising treatment option for the management of MRONJ.

Aim

The primary aim of this poster is to highlight the effectiveness of A-PRF as a viable therapeutic modality in promoting angiogenesis, bone regeneration and soft tissue healing in patients with MRONJ. [1] There are currently limited treatment options for the management of MRONJ. The successful use of A-PRF will add to the treatment methods available to clinicians managing patients presenting with MRONJ.

Method

We present two MRONJ cases that were successfully managed using A-PRF at Barts NHS trust, London. Thorough clinical and radiographic examinations were carried out prior to treatment. Autologous blood was collected from the patients and centrifuged to obtain the A-PRF membrane as per protocol. Debrided lesion sites were lined with the A-PRF membrane and primarily closed. Patients were followed up at regular intervals post treatment.

Results

Full mucosal coverage with no evidence of inflammation, bone exposure or infection was seen in both cases at their two month review and minimal post op pain was reported. At six months there were no bony abnormalities detected radiographically. There were no reported negative sequelae following the procedure with either patient.

Conclusion

These cases show the positive impact of A-PRF use in the management of patients suffering from MRONJ.

Clinicians should consider use of A-PRF or other PRF derivatives as a treatment option for MRONJ patients where intervention is indicated. Due to the limited evidence in the literature; A multicentre study national study for the use of A-PRF will help to provide more details regarding its use in management of MRONJ.

Management of labial and lingual frenums in a paediatric Oral and Maxillofacial unit

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Within Alder Hey Children's Hospital's Oral and Maxillofacial (OMFS) department, we notice a high volume of referrals from different health care professionals requesting a surgical intervention for both upper labial and lingual frenums.
Lip and tongue ties are congenital abnormalities in the upper and lingual frenula. Depending on the length and thickness of the frenula, patients or parents may report issues related to feeding, speech, maintenance of oral hygiene, trauma/ulceration to the soft tissues and cosmetic concerns. Surgical intervention for lip and tongue ties has always been a controversial subject.
As there are no set criteria in the literature, we carried out a service evaluation to look at the appropriateness and outcome of frenectomy referrals.
Methodology:
• Retrospective review of 9 months of Paediatric OMFS referrals for lip and/or tongue tie.
• Record source and primary reason for referral and outcome of consultation.
• Record of patient gender, age at time of referral and type of frenulum tie (lip and/or tongue).
• Recording of the use of local (LA) or general (GA) anaesthesia for any subsequent surgical procedure.
Results:
Over a period of 9 months, we received 95 frenectomy referrals, 48% were for lingual frenectomies and 50% were for labial frenectomies. Intervention was carried out only on 20 patients.
Conclusion:
Lingual frenectomies were performed when there was evidence of true functional restriction present. Referral to speech and language therapy was advised when speech delay was a primary concern for the parent. Labial frenectomies were carried out in patients where there was evidence of trauma or ulceration present, history of difficulty brushing upper anterior teeth or presence of a diastema. Labial frenectomies performed for orthodontic purposes (diastema) were done under local anaesthesia. The referrals for these were from specialist orthodontists based in primary care.

Treatment of Oral Mucositis with Hyaluronic Acid Based Oral Gels and Rinses in Oral Cancer Patients

Dr Emmanuel Egbase
Department of Oral and Maxillofacial Surgery Warrington and Halton NHS Trust

Oral mucositis is the chronic inflammation and breakdown of the oral epithelium. It is a consequence of radiotherapy and or chemotherapy treatment in oral cancer patients. The disease is painful and debilitating. The treatment for oral mucositis is extremely varied. 0.2% hyaluronic acid oral based products are known to promote tissue repair and are considered a possible treatment option but evidence is limited.

To present the findings of systematic review which assess the effectiveness of 0.2% hyaluronic acid oral based products as treatment option to reduce intra-oral pain associated with oral mucositis in oral cancer patients.
A systematic literature search was conducted on the 14th march 2021. 4 databases were looked at, Cochrane Library, Medline, Embase and Dentistry and Oral Sciences source hosted by EBSCO. Searches focused on pain scores in oral cancer patients with oral mucositis after treatment with 0.2% hyaluronic acid oral based products. Studies included were appraised using either the Cochrane Review Risk of Bias tool or Joanna Briggs Institute Critical appraisal tool.
44 studies were found and 5 meet the criteria's for the study. 2 were randomised control trials and 3 were case series. 4 studies found that baseline pain scores reduce after the application of 0.2% hyaluronic acid oral products. 1 study found that pain scores did not reduce. The quality of the evidence was varied. Randomised control trails were strong studies with minimal bias and cases series were weak studies with significant bias. Overall, the quality of evidence was good.

The systematic review found that 0.2% hyaluronic acid oral products help reduce pain caused by oral mucositis but highlighted the lack of well-designed clinical trials into the subject.
More research should also be focused on the method in which hyaluronic acid oral products are applied onto oral mucositis lesion which can vary from sprays, gels, foams and mucoadhesive tapes.

A rare case of Lemierre's Syndrome originating from Odontogenic infection

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Introduction:
Lemierre's syndrome (LS) is a condition characterised by thrombosis of the internal jugular vein (IJV) with distant septic emboli typically from anaerobic *Fusobacterium Necrophorum,* with mortality rate of 0-18%. The source of infection could be of oropharyngeal or odontogenic origin. A literature search conducted via PubMed and Google Scholar revealed a mere 15 case reports of such condition in relation to oropharyngeal/odontogenic infection.
Aims/Objectives:
To investigate the aetiology and pathophysiology of LS, to raise awareness of this potentially life-threatening complication via odontogenic infections, providing a reference to aid in the differential diagnosis thereby improving the quality of care in patient management.
Methods:
A 21-year-old fit and healthy male presented to the Emergency Department (ED) two days after multiple extractions, incision and drainage of buccal space abscess after which he self-discharged prior to completing a full course of intravenous antibiotics. The patient's presenting complaint was nauseousness/drowsiness and was drifting in and out of consciousness in ED. Clinical examination revealed a left-sided facial swelling spreading into the temporalis with significant trismus. An urgent CT revealed left IJV thrombus with widespread pulmonary septic emboli.
Results:
A diagnosis of LS with associated *Staphylococcus Aureus* bacteraemia was made by the radiologist, necessitating the insertion of a PICC line and the use of Cefotaxime, Clindamycin and Metronidazole to manage the bacteria revealed from blood cultures. Three weeks of in-patient intravenous antibiotics followed by one week of oral and outpatient parenteral antibiotic therapy resulted in full resolution symptoms. However, given the septic emboli he was prescribed with direct oral anticoagulant for three months post discharge. The patient subsequently recovered without residual deficits.
Conclusions:
Lemierre's syndrome when recognised and treated early has a good prognosis but delayed treatment may result in significant morbidity and even mortality.

Dental Core Trainee educational resources in Oral & Maxillofacial Surgery

Pippasha Khan, Anthony Campbell
Department OMFS, Bart's and the London Trust
Introduction
Embarking on the dental hospital training pathway is commonly shown to have a steep learning curve. To build on current knowledge as well as look into new clinical and academic skills there are a variety of ways that dental core trainees in oral and maxillofacial surgery can prepare before and during the role. This abstract examines a diverse array of resources essential for their professional growth. From traditional textbooks to cutting-edge virtual simulations, these tools contribute to their learning experience. Understanding the impact and effectiveness of these resources is pivotal as trainees strive to master the skills demanded by the field of oral and maxillofacial surgery.
Aim
To outline the educational tools available to dental core trainees in OMFS to carry out their role
Method

This study employed a mixed-methods approach to comprehensively assess educational resources available to dental core trainees in oral and maxillofacial surgery. A comprehensive search across databases, websites and books. Inclusion criteria emphasized empirical research and critical evaluations of educational tools. Through this evidence-based approach, the study provides a nuanced understanding of the the strengths, weaknesses, and emerging trends in educational support for the trainees as well as affiliated OMFS roles.

Results

Analysis of educational tools for oral and maxillofacial surgery (OMFS) dental core trainees in hospitals revealed that traditional resources like textbooks and workshops remain prominent, supplemented by emerging technologies such as mobile applications. Online modules are gaining traction, indicating a dynamic shift in the educational forum of OMFS trainees within hospital settings

Conclusion

The outlook is that courses and textbooks form the majority of preparation for dental core trainees however there is a rise in e-books and mobile applications usage.

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Can bloods predict severity of facial infection? Analysis in patients with orofacial infections admitted under Oral and Maxillofacial Surgery

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[1]Department of Oral and Maxillofacial Surgery, Norfolk and Norwich University Hospital, Norfolk, UK

Aim

The aim of this research is to assess the blood profile of patients at the time of presentation to assess the severity of infection and management required and to be able to predict the likely outcome for future patients based on these figures.

Method

Data collection: 6-month period from 09/2022-02/2023. 92 patients were admitted under OMFS for odontogenic infection, the blood profile and their resultant management was recorded.

For the patients referred to OMFS numerical and categorical factors used independent T-tests and one-way ANOVA tests respectively to determine statistical significance at the 5% confidence level ($p<0.05$). Linear models and random forest algorithm were used to predict outcomes.

Results

A total of 92 patients were admitted. Mean age 42.8 years (SD = 19.6years), 35% female. 55% of patients had at least one comorbidity. ASA grades: 32% ASA I, 57% ASA II, 10% ASA III. 85% patients required surgery, of those that had surgery, 78% required general anaesthetic.

Treatment performed: Extractions: 91% (single) 42% (multiple). 51% underwent intraoral incision and drainage. 29% had extraoral incision and drainage. Average surgical duration 18 minutes. Median time to surgery: 1 day. Mean duration of stay 2.2 days. There was a statistically significant difference ($p<0.05$) in white blood cell count and surgical management: Average WBC for no surgery 10.28. Average WBC for surgery 13.55 ($p<0.05$).

Predictive accuracy for requirement for surgery was 0.6 with the most important features being CRP and WBC, these demonstrated a positive linear correlation for surgery.

Conclusion

Bloods are clearly predictive of surgical intervention, which cements the requirement of this information at the time of referral to aid decision making. ASA grade and age were highly predictive of duration of stay which is likely due to comorbidities and the requirement of input from other specialities.

An unusual presentation of recurrent pericoronitis

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Objectives:

This case presentation aims to demonstrate the unusual presentation of recurrent pericoronitis in a mandibular third molar, in a healthy young patient. It illustrates the importance of thorough clinical and radiographic assessment in guiding diagnosis and management.

Methods:

A 24 year old healthy male patient presented to the OMFS urgent clinic with a draining extra-oral abscess on the left angle of the mandible, reporting he may have nicked his skin whilst shaving. It was initially treated with antibiotics but did not settle down.

Upon review, the swelling had reduced but the extra-oral sinus tract persisted with draining pus. Further assessment identified a mesially impacted lower left wisdom tooth with mild inflammation of the operculum. Radiographically, there was no evidence of apical infection or distal bone loss.

To assess further, a suture thread with a straight needle was passed through the extra-oral sinus and this exited mesial to the operculum of the lower left wisdom tooth.

Results:

A differential diagnosis was made of chronic periapical periodontitis with a draining sinus. However, cone beam computed tomography did not reveal any apical changes and no breach of the cortical bone surrounding the tooth.

The diagnosis was extra-oral draining sinus secondary to chronic/ recurrent pericoronitis.

The lower left wisdom tooth was surgically removed under general anaesthetic. On a 3 month review the sinus tract had healed well leaving minimal scarring.

Conclusion:

It is well documented for chronic apical lesions to form extra-oral sinus tracts; however, it is unusual for this to occur following soft tissue infection or inflammation (pericoronitis), in the absence of apical pathology or breach in the cortical bone. It is an interesting case that demonstrates the importance of lateral thinking and thorough assessment.

The effectiveness of autologous platelet concentrates in prevention of medication-related osteonecrosis of the jaws: a systematic review.

Sylwia Nowak, Fraser Mitchell, Roberto Sacco, Katarzyna Gurzawska-Comis, Vinoid Patel

Introduction

The adjunctive use of autologous platelet concentrates (APCs) for dental extractions is reported to reduce the risk of developing medication-related osteonecrosis of the jaws (MRONJ). Some of the benefits that APCs offer include enhanced bone remodelling, improved angiogenesis and soft tissue regeneration. A high concentration of growth factors and cytokines in APCs may address the main pathophysiological processes leading to MRONJ, therefore, counteracting its development in patients on anti-resorptive or antiangiogenic therapy (ART/AAT).

Aim

The primary aim of the study was to assess the effectiveness of APCs in the prevention of MRONJ. The secondary aims included the review the patient's demographics, treatment protocols, the type of and indication for ART/AAT.

Method

A comprehensive search in accordance to PRISMA was performed independently by two authors in 4 databases PubMed, MEDLINE, EMBASE, and CINAHL (January 2006 to August 2023). In case of conflicting selection, third author's opinion was sought. Data was collected and analysed. ROB-2 and ROBIN-I were utilised for risk of bias and quality assessment.

Results

Out of 138, 8 articles met the inclusion criteria. Out of 774 patients, 571 were treated with an APCs, such as platelet-derived growth factor (n=218), protein-rich fibrin (n=105) and leukocyte protein-rich fibrin (n=177). A total of 1343 extractions were undertaken (APC group, n=823; non-APC group n=530). Fifty-seven percent of patients were taking AAT/AAT for an oncology diagnosis (n=440), and the remaining 43% for a non-oncology diagnosis (n=335), majority being osteoporosis (n=332). Four out of eight studies were eligible for the meta-analysis. A total of n=79 (13.83%) developed MRONJ following an extraction with an APC (p = < 0.001, Z = 3.90). Heterogeneity amongst studies was high (p = < 0.001; df: 7.000; I2: 92.76%). The selected studies demonstrated high to very high levels of bias.

Conclusion

The adjunctive use of APCs may be effective in reducing the risk of developing MRONJ following dental extractions in up to 86% patients. The results of this review need to be interpreted with caution due to high heterogeneity amongst studies and high risk of bias. More prospective high quality randomised control trials are needed to evaluate the effectiveness of APCs in the prevention of MRONJ,