DHADKAN PRESENTS

DENTIVANCE – A Scientific Fest

2024-2025

Paper Presentation

DEAN
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1)Author: Dishti Bachar

Paper Abstract:

"Plaque-induced gingivitis is a common oral complication in patients with diabetes mellitus, exacerbated by poor glycemic control and altered immune responses. Oil pulling, a traditional Ayurvedic technique involving the swishing of natural oils such as coconut oil, has shown potential anti-inflammatory and antimicrobial benefits in previous studies. However, limited evidence exists on its specific effects in diabetic individuals. This study proposes to evaluate the efficacy of oil pulling as an adjunctive therapy in managing plaque-induced gingivitis among type 2 diabetic patients by incorporating both clinical and microbiological assessments, paving the way for future non-invasive preventive care strategies in this population.. This will be a randomized controlled trial (RCT) with two groups: one group of diabetic patients using oil pulling and a control group following conventional oral hygiene practices (brushing and flossing). Assessment Clinical Parameters, Microbiological Assessment will be recorded for 30 subjects after 7 days respectively for 4-6 weeks. Descriptive statistics will be used to summarize baseline and post-treatment values. A p-value of <0.05 will be considered statistically significant.

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2)Author: Padmini Badjate

ABSTRACT FOR THE PAPER PRESENTATION:

Brown tumour is a rare late-stage skeletal change caused by long-term stimulation of excess parathyroid hormone. It is not neoplastic, but a reparative cellular process. Common sites of brown tumour are the ribs, clavicle, long bones and pelvic girdle. Solitary maxillary brown tumour as initial presentation of primary hyperparathyroidism is rare; it is often accompanied by brown tumours of the other facial bones. Here, we present the first case of solitary maxillary brown tumour in a 65-year-old woman with initial presentation of a large tumour filling the right maxillary sinus.

Biopsy of the suspicious bone tumour and blood tests for calcium and parathyroid hormone level are crucial and essential to reach the correct diagnosis. Most brown tumours show spontaneous regression after parathyroidectomy.

However, direct excision of the brown tumour may be indicated to avoid the risk of facial deformity and orbital compression at a special anatomical site, as in our case.

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3)Author: Akruti Sah

Paper Abstract:

Periodontal pathogens and tongue coatings plays a significant role in the development of oral diseases, particularly periodontitis and halitosis.

Periodontal pathogens such as Porphyromonas gingivalis, Tannerella forsythia, and Treponema denticola thrive in subgingival plaque and are known to cause inflammation, tissue destruction, and bone loss. The tongue dorsum, due to its rough surface, serves as a reservoir for bacterial accumulation, forming tongue coatings composed of epithelial cells, food debris, and microorganisms. These coatings often harbour anaerobic bacteria capable of producing volatile sulphur compounds (VSCs), which are the primary causes of bad breath. The presence of tongue coatings can also contribute to the recolonization of periodontal pockets after the treatment.

Understanding the connection between periodontal pathogens and tongue coatings is essential for effective diagnosis and management of periodontal diseases. Comprehensive oral hygiene practices, including tongue cleaning and periodontal care, are crucial in reducing microbial load and maintaining optimal oral health.

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4)Author: Mansi Agrawal

ABSTRACT:

Bite mark analysis is a method used in forensic science to identify people based on the marks left by their teeth. However, this method has been criticized for its limitations and potential for error. Additionally, there is a lack of standardization and consistency in the way bite marks are analyzed. These findings raise concerns about the reliability of bite mark analysis and its use in criminal investigations. This review looks at the current state of bite mark analysis and highlights its problems and concerns. It was found that bite marks can be easily distorted or contaminated, and that the analysis process is often subjective.

The review also examines the implications of these limitations and concerns for the use of bite mark analysis in forensic science. It discusses the potential for false positives and false negatives, and the risk of misidentification. It also considers the impact of these limitations on the integrity of the criminal justice system and the potential for wrongful convictions.

CONCLUSION:

Overall, this review highlights the need for a critical re-evaluation of the use of bite mark analysis in forensic science. It concludes that bite mark analysis should be used with caution and that more research is needed to improve its accuracy and reliability.

5)Author: Tanishka Kurani

PAPER ABSTRACT

TITLE: Assessment of knowledge and perception regarding the specialty of Orthodontics among general dental practitioners and non-orthodontic specialists.

INTRODUCTION: Orthodontics and Dentofacial Orthopaedics is a specialized field that addresses malocclusions, which are linked to dental issues such as caries, fluorosis, and temporomandibular disorders. In addition to correcting these conditions, it plays a crucial role in overall health. This study evaluates general dental practitioner's knowledge of orthodontics, highlighting the importance of interdisciplinary collaboration referrals and education to enhance patient care.

AIM: To assess the knowledge and perception regarding the specialty of orthodontics among general dental practitioners and non-orthodontic specialists.

MATERIAL AND METHODOLOGY:

Study Design: A cross-sectional study

Sample Size: The sample size was calculated as 100

Material: Material used was a pre-evaluated and validated questionnaire consisting of 20 multiple choice questions based on Google form.

STATISTICAL ANALYSIS: A percentage analysis was carried out after evaluation of the questionnaire.

CONCLUSION: The conclusion drawn was that the study emphasize the importance of increasing awareness and education on orthodontic principles. Additionally, the study also suggests that improved referral practices and better communication between orthodontists and other dental professionals could ultimately benefit the patients.

REFERENCE: Kaneini Shree N, Selvaraj V Knowledge and Attitude of Basic Orthodontics among General Dentists and Non-Orthodontic Postgraduates in South India – A Cross-Sectional Questionnaire Based Survey. ISSN: 2582-6018

KEY WORDS: Orthodontics, Knowledge, Assessment , General Dental Practitioners

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E-Poster Presentation

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1)Author: Kalyani Saryam & Ridhali Tapase

ASSESSMENT OF FLUORIDE TOXICITY AND IT'S HEALTH IMPACT

Abstract

This e poster access the critical issue of fluoride contamination and its associated health impacts on Rayatwadi block Ramtek, Nagpur Maharashtra. Lab analysis found elevated fluoride level in drinking sources, particularly groundwater access through handpump reveals fluoride concentration of 1.87 mg/ L exceeding the permissible limit of 1.5 mg/L . Excessive fluoride intake through drinking water lead to significant health risk to local population leading to conditions such as dental fluorosis and early sign of skeletal fluorosis. Environmental degradation primarily due to deforestation and groundwater depletion has intensified the problem by increasing the dependence on the borewell that tap fluoride rich aquifer. This highlight the urgent need for implementing defluouridation technique and emphasizing the importance of public awareness and conducting regular water quality monitoring to protect the community health and ensure safe drinking.

2)Author: Oshmi Jain & Prerna Indore

Poster ABSTRACT:

Patient-Specific Instrumentation (PSI) has been introduced as a method for achieving a customized, precise implant fit, offering enhanced accuracy along with the advantages of shorter rehabilitation periods and overall cost reduction. This approach requires extensive preoperative planning, predominantly based on preoperative CT scans or MRI, as dictated by the manufacturer's protocol, along with additional inputs from the surgeon. Custom disposable cutting guides are subsequently fabricated using specialized software. In recent years, Patient-Specific Implants (PSIs) have seen rapid advancements in cranio-maxillofacial surgery, particularly for complex three-dimensional (3D) structures. Titanium PSI has been successfully employed in the reconstruction of orbital walls and sections of the maxilla. Othermaterials, such as polymethyl methacrylate (PMMA) and composite materials, have also demonstrated success in reconstructing the skull and facial skeleton.

The primary benefit of these reconstructions lies in their ability to restore anatomical structures with high fidelity, leveraging the same industrial Computer-Aided Design (CAD) processes used in manufacturing. In surgery, however, the CAD process begins with the patient's CT data.

Management of patients with post-traumatic and post-operative mandibular defects represents a pressing medical and social challenge. Large defects, which significantly disrupt bone continuity, lead to cosmetic deformities, impaired mastication, swallowing and speech, as well as deterioration in somatic health, severe psycho-emotional disturbances and a reduced quality of life. The primary goals of treatment are to restore masticatory function and achieve a satisfactory aesthetic outcome. Various surgical techniques have been developed to address mandibular defects, including the use of bone grafts, endoprostheses, patient-specific implants, tissue engineering methods and distraction osteogenesis. Currently, the gold standard for the treatment of large mandibular defects involves the use of vascularized and non-vascularized autologous bone grafts from the fibula, iliac crest, scapula and other donor sites. These grafts not only restore mandibular continuity and shape but also facilitate future prosthetic rehabilitation using dental implants.

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3)Author: Miss Arya Hiwase & Miss Devangi Bhute

Abstract

"Silent Erosion: When Vitamins Vanish, Oral Health Pays the Price."

Category: Review (E- Poster)

Abstract: Oral manifestation is important because they can be early indicators of vitamins deficiencies. Oral health serves as a mirror to overall nutritional status, so changes like ulcers, burning sensations, swelling or bleeding may serve as a warning sign for nutritional deficiency. Deficiencies in essential vitamins such as Vitamin A, B-complex, C, D and K can lead to a range of oral complications including glossitis, angular cheilitis, gingival bleeding, delayed wound healing and increase susceptibility to infections. This poster highlights the correlation between specific vitamin deficiencies and their oral manifestations, emphasizing the importance of nutritional assessment in dental diagnosis and treatment. Thus, any abnormalities in the oral cavity should be screened by professional, to make an appropriate and timely diagnosis in the case of a Vitamin deficiency.

Key Words: Vitamin deficiency, Oral manifestations, Oral health.

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4)Author: Krishnan Jaiswal & Parimal Anikhindi

POSTER ABSTRACT

Oral health is a critical component of overall well-being. In India, disparities between urban and rural areas in terms of dental healthcare access and quality are pronounced. This E-poster aims to explore these disparities through a comparative analysis of dental healthcare between urban and rural areas in India it highlights significant differences in access, utilization, and outcomes of dental services.

The urban clinic benefits from better infrastructure, higher patient turnover, and access to advanced treatments. In contrast, the rural clinic faces challenges such as equipment shortages, limited staff, and lower patient awareness about oral health.

The urban-rural divide in dental healthcare in India is a multifaceted issue requiring comprehensive strategies. By addressing infrastructure gaps, workforce distribution, and public awareness, it is possible to improve oral health outcomes across the country.

To address these disparities, the following measures can be recommended:

Mobile Dental Clinics

Incentivize Rural Practice

Public Awareness Campaign

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INTERLINK
PAPER & POSTER PRESENTATION

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1)Author- Dr. Sheetal Kedar & Dr. Bushra Siddiquee

Acute Generalised Gingival Hyperplasia of Adult: A Rare

Case Report

Abstract

Introduction: Gingival hyperplasia refers to an abnormal overgrowth of the gingival tissues, which in its acute and generalized form, presents as rapid, widespread, and often painful gingival enlargement. Gingival hyperplasia is most commonly associated with poor oral hygiene and the accumulation of plaque and calculus; however, various other etiological factors contributing to gingival enlargement have also been documented in the literature.

Case report: This case report presents a 44-year-old male reported with clinical symptoms such as fatigue, fever, bleeding tendencies, and generalized gingival hyperplasia. Laboratory investigations revealed elevated white blood cell count, anemia, and blast cells on peripheral blood smear. Based on these findings final diagnosis of Acute myeloid leukemia (AML) M5 was given. In present case before initiation of treatment patient succumbed to death. Acute Myeloid Leukemia (AML) is a heterogeneous group of hematopoietic malignancies characterized by clonal proliferation of myeloid precursors with impaired differentiation. It is further divided into M5a (poorly differentiated) and M5b (well-differentiated).

Conclusion: The case emphasizes the importance of recognizing oral manifestations as early indicators of systemic malignancy, and highlights the diagnostic utility of peripheral blood smear. Early diagnosis and prompt initiation of treatment are crucial to improve prognosis in such aggressive leukemias.

Key words: Acute Myeloid Leukemia, Acute Gingival Hyperplasia, Leukemic Infiltration, Peripheral blood smear.

2)Author: Dr. Divya Kamnani

Abstract

The role of Artificial Intelligence in enhancing Prosthodontic workflow: A VDO perspective

Background -The vertical jaw relation, which refers to the positional relationship between the upper and lower jaws, plays a vital role in determining occlusion, bite alignment, and overall dental function. Traditionally, the assessment and management of vertical jaw relations have been based on manual examination and subjective clinical judgment, which leads to lot of human error.

Introduction- The integration of artificial intelligence (AI) technologies in dentistry offers an innovative approach, improving the precision and consistency of vertical jaw relation assessments. AI, particularly machine learning algorithms and computer vision techniques, can analyze and assess the vertical dimension of occlusion, predict optimal jaw positions, and automate the detection of discrepancies.

Discussion- By utilizing AI, the risk of subjective bias in diagnosis and treatment planning is minimized, and the efficiency of the process is significantly enhanced. As AI continues to advance, its role in dentistry is expected to expand, offering greater precision, automation, and personalized care for patients seeking prosthetic treatment.

Conclusion -This model examines the application of AI in vertical jaw relation analysis, highlighting its potential to revolutionize prosthodontic treatments, improve the accuracy of bite assessments, and optimize patient outcomes.

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3)Author: Dr. Sakshi Chaudhari

ABSTRACT

MUCOPRESS: Diagnostic Device for Evaluating Tissue Compressibility in Edentulous Patients

Background

Tissue compressibility plays a vital role in the fabrication of well-fitting dentures for edentulous patients. Existing evaluation methods, such as the T Burnisher, USG-aided devices, and CBCT-aided evaluation, have notable limitations, including the lack of quantitative measurement, high costs, and radiation exposure. So a more precise method to measure tissue compressibility is essential for improving prosthodontic outcomes.

Introduction

This table clinic presents the process of development and validation of an innovative device to measure the compressibility of the denture-bearing mucosa in the maxilla and mandible. The biomechanical properties of denture-bearing mucosa such as mucosal compressibility, influenced by tissue thickness, elasticity, and hydrostatic pressure, affects denture retention, stability, and comfort.

Discussion

A novel device is proposed to quantitatively assess tissue compressibility by recording tissue displacement under controlled pressure. Our aim is to propose a classification based on tissue compressibility measurements in edentulous arches, with comparisons of device readings across different intraoral sites. This will provide insights into regional variations in tissue resiliency, aiding in the selection of appropriate treatment options.

Conclusion

By introducing an objective measurement tool for soft tissue compressibility will aid in designing the denture prosthesis effectively by incorporating design modifications to accommodate differences in tissue compressibility at various locations.

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5)Author: Netal Sabu

ABSTRACT

"A Knocked-Out Tooth Can Be Saved—If You Act Fast."

Tooth avulsion, the complete displacement of a tooth from its socket, is a common dental emergency among school-aged children. Teachers, often the first responders in school settings, play a critical role in managing such injuries. Their immediate action can significantly impact whether the tooth is saved. Unfortunately, awareness of proper first aid for dental trauma remains limited among educators, leading to delayed or incorrect treatment.

This poster aims to raise awareness and provide essential information on managing tooth avulsion. It highlights time-sensitive actions, such as locating the tooth, handling it gently, and either replanting it or storing it in an appropriate medium like milk or saline. The emergency protocol is simplified into practical, easy-to- follow steps that can be integrated into first-aid training for teachers.

By empowering educators with this knowledge, we can greatly improve the chances of saving a child's smile after a traumatic dental injury.

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REF: RDDC & RC /DEAN/BORS/F.NO. 42/ 1058 /2025 **DATE: 02/07/2025**

CIRCULAR

This is to certify that the following Undergraduate and Postgraduate students have applied for Short Term Research Grant for the year 2024-25 scheme under MUHS, Nashik.

1. Aashna Vidyarthi
2. Abhay Wasu
3. Aditi Bhaiya
4. Aishwarya Chinchkhede
5. Akanksha Mahalle
6. Anant Kanhare
7. Anuj Manwatkar
8. Anushree Matre
9. Anushree Pawar
10. Archita Patel
11. Akshata Awchat
12. Ayush Chinchlakar
13. Bhakti Kalbande
14. Shubham Bhavane
15. Bhumika Vaswani
16. Deepal Gaidhane
17. Dishti Bachar
18. Divya Kamnani
19. Fauzia Hasan
20. Gouri Shukla
21. Harshada Misal
22. Harshal Burile
23. Ishita Surana
24. Jayendra Desai

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26. Kalyani Gaikwad
27. Kashish Kewlani
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29. Khyati Palan
30. Komal Swami
31. Kunjal Mehta
32. Manika Jaiswal
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34. Mohini Pawshekar
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38. Ojashree Didolkar
39. Onkar Redekar
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43. Pranita Ingle
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47. Priyal Wasule
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49. Rashmi Dube
50. Rashi Mishra
51. Ritka Gattani
52. Roshni Valecha
53. Ruchita Bhujade
54. Shantanu Raut
55. Sheel Mate

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62. Suhani Nanwani
63. Sunayna Bidave
64. Tamanna Kandhari
65. Tanishka Kurani
66. Tanushree Jaiswal
67. Tanvi Yerunkar
68. Tasneem Azad
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70. Vaishnavi Langde

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