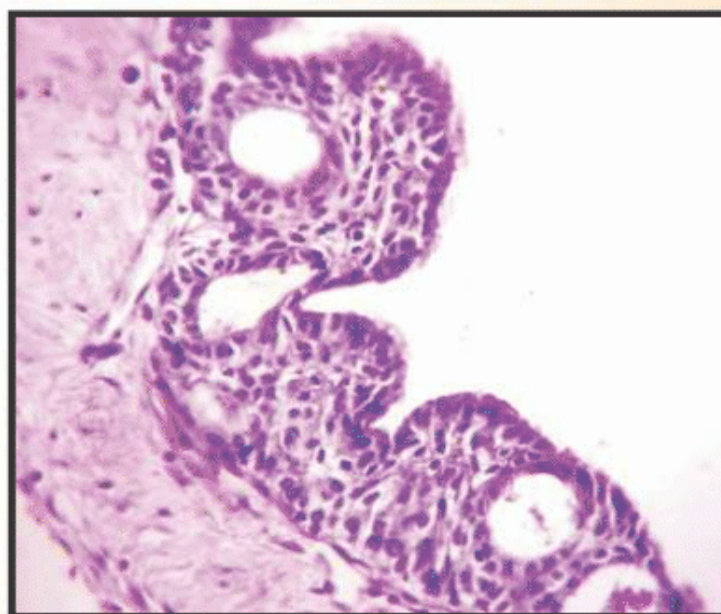


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SPOCP40

Neurofibroma with dystrophic calcification

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Introduction: Neurofibromas are benign heterogenous peripheral nerve tumors arising from the connective tissue of the nerve sheath that may assume one of three growth patterns - localized, diffuse or plexiform. In the literature, a large number of variants of neurofibromas have been reported which include epitheloid change, presence of skeletal muscle or benign glands, pseudorosettes, psammoma bodies or melanin laden pigmented cells. Here we describe the clinical features and histopathologic findings associated with a neurofibroma with dystrophic calcifications. **Case Report:** A 44-year-old female patient presents with swelling and intermittent pain on right side of the face since 11 years. Clinical examination shows solitary diffuse swelling measuring 5 x 6 cm, firm to bony hard in consistency, extending from 43 to retromolar area and lingual displacement of mandibular posterior teeth. Orthopantomograph reveals diffuse multilocular radiolucencies with areas of radio opacities extending from 42 to the coronoid process. Histopathology reveals delicate connective tissue stroma with numerous spindle cells having short wavy nucleus. Myxoid areas with plenty of dystrophic calcifications are seen throughout the stroma. Sections were stained by toluidine blue for mast cells and immunohistochemistry markers like Vimentin, S-100 and neuron specific enolase (NSE). **Summary:**

FPACR04

Odontoameloblastoma: A report of two rare cases

Bhavana P, Karpagaselvi S, Divya S, Ranjini MR

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Introduction: Odontoameloblastoma is an extremely uncommon mixed odontogenic tumor that contains an ameloblastomatous component and odontoma like elements, usually seen to occur in the mandible of younger patients. Radiographically, the tumor shows central destruction of bone with extension of cortical plates both buccally and lingually. The tumor is seen containing calcified structures in the radiograph. These have the radiopacity of tooth structure and may resemble miniature teeth similar to a compound odontoma or occur as large masses of calcified material similar to a complex odontoma. **Case Report:** We report two cases, one case of a 17-year-old male and the second case of a 47-year-old male both of whom reported with a hard, diffuse, solitary swelling over the right lower third of the face since 8 months and 9 years, respectively. Histopathological sections of tumor mass showed areas of ameloblastomatous proliferation showing follicular and plexiform pattern, intermingled with odontogenic hard tissues like enamel, dentin, cementum and soft tissues like pulp and stellate-reticulum-like tissue. Many structures were seen resembling atypical tooth germs and dental papilla. A diagnosis of odontoameloblastoma was made. **Conclusion and Summary:** We present two cases of varying ages (a 17-year-old and a 47-year-old male). Both cases were treated like conventional ameloblastomas, with hemimandibulectomy performed on both. We recommend that hemimandibulectomy may be the treatment of choice for odontoameloblastomas, as both the cases we have reported, remain disease free, without any recurrence till today.

Key words: Odontoameloblastoma, ameloblastomatous proliferation, compound odontome, complex odontome

SPOCP41

Clear cell carcinoma of minor salivary glands of the hard palate

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Introduction: Clear cell carcinoma is an infrequently encountered neoplasm, originating exclusively in the intraoral minor salivary glands. Their distinctive histology justified it as a separate entity to be included in the classification of World Health Organization.

Case Report: A 40-year-old female patient presented with a diffuse, slow-growing, painless swelling of 6 years duration on the right side of the face. Patient had a history of smoking 10 cigarettes per day since 10 years. Intra orally a diffuse hard swelling on the hard palate measuring 5 × 6 cm extending from mesial aspect of right first premolar to the distal aspect of right third molar and a mild swelling on the buccal mucosa over the first molar was noted. Orthopantomograph showed extensive bone loss in relation to second premolar and erosion of bone in relation to first molar. Histopathology revealed predominantly clear cells with prominent hyperchromatic nuclei arranged in nests and cords separated by hyalinized connective tissue fibers and perineural invasion. An immunohistochemical analysis was done for the following markers - CK 5/6, p53, S-100, SMA, CD10 and Vimentin. **Summary and Conclusion:** In the present case report we describe a rare malignant tumor affecting minor salivary glands of the hard palate. Differential diagnosis of malignant salivary gland tumor, clear cell odontogenic tumor and a metastatic tumor of renal origin was considered. Immunopositivity for CK 5/6, p53, S100, negativity for SMA, CD10 and Vimentin favored a diagnosis of clear cell carcinoma of minor salivary glands of the hard palate.

Key words: Clear cell, clear cell carcinoma, salivary gland

Key words: Intraosseous, jaw, neurofibroma, plexiform

SPOCP15

Unicyclic ameloblastoma with granular cell transformation: An unusual histopathologic presentation: A case report

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Introduction: Unicyclic ameloblastoma, a less aggressive variant of ameloblastoma displays a cystic cavity lined by ameloblastomatous epithelium. Granular cell transformation in unicyclic ameloblastoma is rare, with granularity attributed to increased presence of lysosomes in cytoplasm. **Case Report:** A 22-year-old female patient with swelling and intermittent pain in the lower left jaw since six months with a history of similar symptoms in the same region three years back for which extraction of 36 and socket curettage were done. Inspection revealed buccal cortical plate expansion. Orthopantomograph showed well-circumscribed multilocular radiolucency with sclerotic borders, from distal surface of 33 to mesial root of 37. Histopathology revealed cystic epithelium showing palisading columnar basal cells with nuclei displaying reversal of polarity. Stellate reticulum-like cells with focal areas of granular transformation with eccentric nucleus and granular cytoplasm were noted. Intraluminal projections, ghost cells and dysplastic dentin were appreciated besides an ameloblastic follicle in capsule. Special stains and immunohistochemical analysis were done to determine origin of granular cells. **Summary and conclusion:** Presenting a cystic lesion lined by ameloblastomatous epithelium with intraluminal & mural features along with granular cell transformation in stellate reticulum-like cells. Granules stained positive with PAS and for IHC markers S-100 and CD-68, supporting macrophage lineage of cells thus confirming unicyclic ameloblastoma with granular cell transformation. Wide marginal excision of the lesion was done and the patient is free of recurrence since six months. The rarity of this transformation and possibility of confusion with other granular cell lesions requires further research of this locally invasive neoplasm.

Key words: Ameloblastoma, granular cells, unicyclic

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DENTAL LABORATORY PROCEDURES

Volume III

REMOVABLE PARTIAL DENTURES

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Custom Mouth Guards

Robert M. Morrow, William A. Kuebker, Richard R. Seals,
P.R. Annamalai, and U. Aruna

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Mouth guard (mouth protector) A device or appliance placed inside the mouth to reduce mouth injuries, particularly to teeth and surrounding structures

A removable dental prosthesis made of a resilient material which is useful in reducing mouth injuries and protecting teeth and surrounding structures from injury. (GPT-8)

INTRODUCTION

Mouth guards have been worn by sportsmen for almost 100 years and were initially used by boxers. Mouth guards have proved to be particularly effective in reducing injuries to teeth and surrounding structures in 'contact' sports participants. In certain sports, such as football, their use is mandated by rules implemented by the sport's governing bodies. The sports participants have the following three types of mouth guards to choose:

1. Type I (stock mouth guard)—A mouth guard purchased over the counter and ready for use. Stock mouth guards come in different sizes and are mostly made from polyurethane, or a co-polymer of vinyl acetate or ethylene. Stock mouth guards are least favourable as they offer minimum protection.

2. Type II (mouth moulded)—Purchased over the counter but fitted to the athlete's mouth, usually by softening in hot water, then by adapting over the teeth. Most are the heat-softening type, but a few are adapted to the teeth with a fast-setting soft resin. These are also known as "boil and bite" mouth guards, where a thermoplastic rim is heated in hot water, then placed in the mouth and moulded by biting and sucking. These mouth guards also have a poor fit and they tend to be thin over prominent teeth that are prone to damage.
3. Type III (custom)—The custom mouth guard is constructed on a cast obtained from an impression of the player's mouth. A popular method is to heat a sheet of thermoplastic mouth-guard material and then pressure/vacuum-adapt it over the dental cast. Custom mouth guards have several advantages over the other types, including better fit and adaptation, improved comfort and less interference with breathing and speech.

Custom mouth guards have been constructed from rubber, silicone materials and various resins including vinyl resins, acrylic resins and polyurethane. However, the material most commonly used is the polyvinyl acetate-polyethylene (EVA) co-polymer. Physical properties of the EVA co-polymer may be changed by altering the

Wrought Wire

James S. Brudvik, Sanjna Nayar, and P.R. Annamalai

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Anneal To heat a material, such as metal or glass, followed by controlled cooling to remove internal stresses and create a desired degree of toughness, temper, or softness to a material (GPT, 2005).

Clasp The component of the clasp assembly that engages a portion of the tooth surface and either enters an undercut for retention or remains entirely above the height of contour to act as a reciprocating element. Generally it is used to stabilize and retain a removable dental prosthesis (GPT, 2005).

Embrasure (1) The space formed when adjacent surfaces flair away from one another. (2) In dentistry, the space defined by the surfaces of two adjacent teeth; there are four embrasure spaces associated with each proximal contact area: occlusal/incisal, mesial, distal and gingival (GPT, 2005).

Solder (1) A fusible metal alloy used to unite the edges or surfaces of two pieces of metal; something that unites or cements. (2) To join, bring into or restore to a firm union; the act of uniting two pieces of metal by the proper alloy of metals (GPT, 2005).

Undercut (1) The portion of the surface of an object that is below the height of contour in relationship to the path of placement. (2) The

contour of a cross-sectional portion of a residual ridge or dental arch that prevents the insertion of a dental prosthesis. (3) Any irregularity in the wall of a prepared tooth that prevents the withdrawal or seating of a wax pattern or casting. (4) To create areas that provide mechanical retention for materials placement (GPT, 2005).

Wrought (1) Worked into shape, formed. (2) Worked into shape by tools, hammered. (GPT-8)

DEFINITION

Wrought wire clasp arms can be constructed in any configuration to be compatible with any design concept. Except in the case of certain temporary appliances, these arms are used only for the retentive portion of the clasp assembly. The non-retentive (bracing) component is either cast metal or, in some cases, resin.

Diagnostic and Treatment Appliances

Charles McNeill III, P.R. Annamalai, and U. Aruna

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Splint (1) A rigid or flexible device that maintains in position a displaced or movable part; also used to keep in place and protect an injured part. (2) A rigid or flexible material used to protect, immobilise or restrict motion in a part. (GPT-8)

Bruxism (1) The parafunctional grinding of teeth. (2) an oral habit consisting of involuntary rhythmic or spasmodic non-functional gnashing, grinding or clenching of teeth, in other than chewing movements of the mandible, which may lead to occlusal trauma, attrition of the teeth, muscle ischemia, pain and damage to the supporting tissues. It is also called tooth grinding or occlusal neurosis. (GPT-8)

Clicking A series of clicks, such as the snapping, cracking or noise evident on excursions of the mandible; a distinct snapping sound or sensation, usually audible (or by stethoscope) or on palpation, which emanates from the temporomandibular joint(s) during jaw movement. It may or may not be associated with internal derangements of the temporomandibular joint. (GPT-8)

Clenching The pressing and clamping of the jaws and teeth together frequently associated with acute nervous tension or physical effort. (GPT-8)

Condylar displacement Positioning of the condyle out of its normal location in the glenoid fossa. (GPT-8)

INTRODUCTION

Occlusal therapy in the form of removable and fixed appliances or splints is an important adjunct to prosthodontic procedures. Pathologic manifestations of

the masticatory system require reversible diagnostic and intermediate treatment measures before finalisation of any prosthodontic treatment. Temporomandibular joint disorders, bruxism, instability of the maxillomandibular relationship, vertical dimension or other bite alterations, tooth mobility and/or periodontal involvement, extreme tooth wear, and fracture all demand proper sequential management.

The sequence of treatment begins with all proper diagnostic procedures mentioned in previous chapters. Occlusal appliances or splints must be considered when the occlusion is suspected as the cause of the patient's problems, or if the occlusion is to be altered by any discernible magnitude that would change the maxillomandibular relationship. Furthermore, after the diagnostic procedures many prosthodontic patients need re-evaluation before the treatment is finalised.

The periodontal, pulpal and temporomandibular joint health must be evaluated before progressing to the final steps of the case. Once the final treatment plan is determined, an occlusal appliance still may be included in the overall treatment regimen.

There are many types of diagnostic and treatment appliances. They can be fixed or removable. In this chapter only a few representative forms of appliances will be

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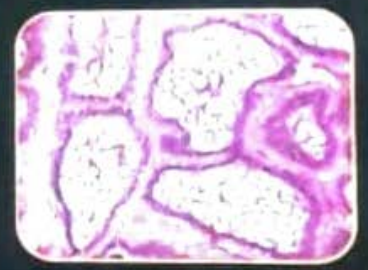
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Quick Review of
**ORAL ANATOMY,
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Quick Review of ORAL ANATOMY, HISTOLOGY, PHYSIOLOGY and TOOTH MORPHOLOGY

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Publisher's recommendation: Best if read as a companion book to the revised and updated textbook by the same authors—*Textbook of Oral Anatomy, Histology, Physiology and Tooth Morphology*, 2nd edition by K Rajkumar and R Ramya.

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containing 20 questions containing three domains was distributed among the participants. The data was analysed using descriptive analysis. The average knowledge score was 66%, average attitude score was 76%. Only 19% knew the age of referral. 3% had received training, 94% were willing to receive training. Thus, it concludes that there is a need to increase the level of knowledge and awareness among health care professionals about oral health care in children.

Immovable to movable joint

Rohith Raghavendra Koppalkar, Vinod Kumar, Naveen Kumar R
Navodaya Dental College And Hospital, Raichur

TMJ ankylosis is defined as osseous or fibrous fusion of condyle of mandible and mandibular fossa of temporal bone. TMJ ankylosis in children results in impaired mandibular growth, retrognathism, functional difficulties pertaining to speech, mastication, compromised airway space, unpleasant esthetic, nutrition and poor oral hygiene. Pedodontist could be the first to observe the ankylosis of TMJ as a part of infant oral health care. Treatment should be initiated as soon as the condition is recognized, with the main objective of re-establishing harmonious jaw function, promoting proper growth of mandible and to facilitate the positive psychological development of the child. A multidisciplinary approach is needed to treat this disparity which includes Pedodontist, Oral and Maxillofacial Surgeon, Orthodontist, and allied sciences as a part of health care team.

Heal the coele - Seal the deal

Rinee Khanna, Sowmya navit, Suleman Abbas Khan,
Anshul Sharma, Seema Jabeen

Department of Pedodontics and Preventive Dentistry, Saraswati Dental College, Lucknow Dr. Ram Manohar Lohia Avadh University, Faizabad.

Mucocele is the second most common benign soft tissue tumor occurring in the oral cavity, and the most common lip swelling in children. They are characterized by the accumulation of liquid or mucoid material, giving rise to a rounded, well circumscribed transparent and bluish-colored lesion of variable size with soft and fluctuant consistency in response to palpation.

These lesions are frequently found in the minor salivary glands, which are distributed throughout the oral submucosa.

Etiologically, most mucoceles are considered to be secondary to traumatic or obstructive disorders of the mainly minor salivary glands—the preferential location being the humid mucosa of the lower lip

The surgical approach to Oral Pathological lesion is the most common treatment. The other treatment alternatives to conventional surgical approaches include Cryosurgery, Carbon dioxide (CO₂) lasers, sclerosing agent OK-432 and the recently employed micro-marsupialisation.

Knowledge and aptitude of dentist who treats children regarding dental fear

Sowmya Sree R.A., Joe louis, Daya srinivasan
Chettinad Dental College and Research Institute, Chennai, Tamilnadu

We have to consider every child coming for the dental treatment, will have some amount of fear. This poster discuss about the knowledge of dentist about fear and its assessment using various scales to understand the amount of fear the child is having and to alter the management techniques and treatment accordingly.

Ectodermal Dysplasia- A Unique Approach to Esthetic and Prosthetic Management

R Archana, Krishna Priya V

Department of Pedodontics and Preventive Dentistry, Army College of Dental Sciences, Secunderabad, Telangana

Ectodermal dysplasias are rare hereditary disorders characterised by abnormal development of certain tissues and structures of ectodermal origin. Prevalence is approximately 1 in 100,000 live births. Till date, more than 200 distinct disorders have been described. It is characterized by the classical triad of hypodontia, hypohidrosis and hypotrichosis. Thorough knowledge of the condition is required to come to a diagnosis and executing a right treatment plan. The individuals are quite young when they are evaluated for treatment. Speech defects, decreased academic performance and social isolation may result from merely looking different from one's peers. To ensure adequate care, child requires early treatment with combined effects of pediatric professionals, orthodontist, prosthodontist, oral and maxillofacial surgeon, psychologist, ENT specialist, speech therapist and dermatologist. This poster illustrates the interdisciplinary approach to provide the child with optimal esthetics and function to allow the child to develop physically, emotionally and socially.

Sports dentistry : How safe, are you playing?

Rajashekhar R , J. Sharada

Dept. of Pedodontia, Govt. Dental College and Hospital, Hyderabad

Sports dentistry is the most recent and upcoming fields in dentistry. Its main focus is prevention of orofacial trauma in sportsmen. Sports related injuries not only affect the oral cavity and teeth, but also have potential to cause severe head and temporo-mandibular joint injuries. The participation in sports and athletic activities is gaining popularity in India. Many athletes and sports authorities are not aware that these injuries can be prevented by the use of simple devices such as mouth guards, protective face masks, and helmets which protect the teeth and keep the TMJ in a secured position thus preventing injury. The dentist can play a very important role in informing the athletes, coaches and authorities about the importance and ease of preventing sports related orofacial injuries. The aim of this poster is to increase awareness and interest for prevention of sports related orofacial injuries in Indian scenario.

Multidisciplinary team approach in treating cerebral palsy.

Raj Sanjay Dalsania, Saloni Shah, Dinesh Rao B
Pacific Dental College & Hospital Udaipur, Rajasthan

The cerebral palsy is a term describing a constellation of neuro-muscular disturbances, non-contagious and non-progressive, that are determined by brain damage in its early stages of development. Population-based studies from around the world report prevalence ranging from 1.5-4/1,000 live births. Cerebral palsy children are more susceptible to oro-facial and medical diseases such as dental caries, gingivitis, malocclusion, bruxism, seizure disorder, gastroesophageal reflux, delayed motor development, speaking disorders, etc. Often, the initial stage of treatment can involve an interdisciplinary team approach, which comprises of paediatric dentist, neuropaediatrician, oral surgeon, orthodontist, gastroenterologist, periodontist, speech and physiotherapist, etc. Early involvement of respective specialist avoids severe problems due to delayed onset of therapy. Dental professionals should be integral members of teams of professionals involved in optimizing the health of individuals who have cerebral palsy. With this knowledge the best possible health care can be provided by collaboration of all the helping hands.

Interdisciplinary Pediatric Dentistry-a parallel act

Reena Rani, Sanjay Chachra, Bansal

Swami Devi Dyal Hospital And Dental College Barwala Haryana

of rehabilitation team, including family and caregivers, thus making it "An Interdisciplinary Avenue." As each patient presents with a unique set of challenges to the whole team, providing an established dental home and coordinating with various specialities, forms "The Key to Success."

Genetics- An evolving discipline

Jannis, Sandeep Tandon

RUHS College of Dental Sciences, Jaipur

With the growing complexity of health care, inter branch communication and collaboration are essential to optimize the care of dental patients, including consideration of genetics. Genetic counseling is the process of providing individuals and families with information on the nature, inheritance and implications of genetic disorders to help them make informed medical and personal decisions. This deals with genetic risk assessment and the use of family history and genetic testing to clarify genetic status for family member. It is appropriate to offer genetic counseling (including discussion of potential risks to offspring and reproductive options) to parents of affected individuals, as well as to young adults who are affected or at risk. The incorporation of genetic testing into evolving discipline of pediatric dentistry will promote a better understanding of disease etiology and permit early, even pre-symptomatic diagnosis.

Foreseeing the ambiguous future

Jashmeet Dhupar, Manasi Shimpi, Laxmi Lakade, Shweta Chaudhary

Bharati Vidyapeeth Demeed University Dental College and Hospital Pune

The evaluation of the pattern of occlusion and facial soft tissue analysis in primary dentition may be of value to foresee a possibility of developing malocclusion in permanent dentition and aids in treatment planning. The aims and objectives of this study include: a) to assess the characteristics of occlusion of the population of the pre-school children in Pune, b) to assess photographic soft tissue features in these children, c) to check for sexual dimorphism of the occlusal and photographic soft tissue features, d) to study the correlation of malocclusion with body variables. Children of 3-5 years of age in pre-schools of Katraj region will be assessed for their characteristics of occlusion in maximum intercuspation using a mouth mirror and probe in daylight under sterile conditions. Photographs will be taken using a DSLR. Photographic analysis will be done. Since this study is still in progress, the results are awaited.

Dental Neglect-Need of a law?

Jayanthi Kannappan, Joe Louis, Divya Natarajan

Chettinad Dental College and Research Institute, Chennai, Tamilnadu

Children are our most valuable natural treasures. Everyone in the society has got a responsibility to ensure that children are kept safe from harm. Parents are the caregivers of a child. They are responsible for child's health. This poster brings about the important role of parents towards child's oral health. Parents who neglect their children's oral health should be educated and motivated towards dental care and in extreme cases of negligence, they should be considered to be brought under criminal penalization.

Inter-disciplinary pediatric dentistry in oral health status

Jayanti Ghosh, Pooja Pani, V. C. Balaji

Awadh Dental College & Hospital

Despite the concerted efforts of research and professional and advocacy stakeholders, recent evidence suggests that improvements in the oral health of young children in India has not followed the prevailing trend of

oral health improvement in other age groups. In fact, oral health disparities in the youngest children may be widening, yet efforts to translate advances in science and technology into meaningful improvements in populations health have had limited success. This poster showcases the latest contributions across the interdisciplinary continuum of pediatric oral health research and provides insights into future research priorities and necessary intersectoral synergies. Issues are discussed as related to the overwhelming dominance of social determinants on oral disease and the difficulty of translating science into action.

It is recommended that children's first dentist appointment should be scheduled before the eruption of primary dentition, so that their parents and/or caregivers may be provided with proper instructions about oral hygiene and good dietary habits, in order to preserve the integrity of children's oral health. In addition, periodic visits to the dentist are important for monitoring the child's dentition and craniofacial growth.

The consequences of severe early childhood caries and premature loss of primary dentition can compromise the child's quality life, as they affect aesthetics, nutrition, speech development, dental arch integrity, development and eruption of permanent successor teeth, and contribute to the establishment of deleterious oral habits.

Management of cleft lip and palate-An interdisciplinary approach

Jerin Mary Issac, Korath Abraham K, Ektah Khosla, Elza Thenumkal

Mar Basellos Dental College and Hospital

Cleft lip and palate is one of the most common developmental disorders found in humans. Individuals born with cleft lip and palate are often stigmatized and face much psychosocial diversity. Cleft anomalies affect several organs and functions within the body, necessitating multidisciplinary treatment across various specialities. Whitehouse describes the clinical team as a 'close, cooperative, democratic, multiprofessional union devoted to a common purpose-the best treatment of the fundamental needs of the patient'. The team may be composed of plastic surgeon, pedodontist, oral and maxillofacial surgeon, pediatrician, psychiatrist, orthodontist, prosthodontist, ENT surgeon, geneticist, speech therapist, audiologist, nursing staff and social worker. Meticulous planning by the team members ensures proposed procedures are appropriate and that the timing of the procedures are in keeping with the developmental milestones of the patient.

Management strategies for Hemophiliacs- An interdisciplinary approach.

Jigar M Yadav, Vini Joyner

The Oxford Dental College, Bengaluru, Karnataka.

Hemophilia is an X-linked disorder with a frequency of about 1 in 10,000 births, caused by deficiency of coagulation factors, and the disease is usually present from birth. Initial recognition of this bleeding disorder, sometimes can occur in dental practice.

Prophylactic, restorative and surgical dental care of patients with hemophilia is best accomplished by oral health care providers who are knowledgeable about the pathology, complications and treatment options associated with this condition.

Recent advances in the management of hemophilia in coordination with other health care providers (hematologist, pediatrician, general physician) have enabled effective and efficient management of these special children.

The purpose of this poster is to enumerate the latest advances and various management strategies in achieving optimum oral health care.

Stem cells are pluripotent cells that can divide and multiply for an extended period of time, differentiating into a diverse range of specialized cell types and tissues. Stem cell therapy includes bone marrow transplantation to treat hematopoietic cancers, metabolic disorders, and congenital immunodeficiency syndromes, Parkinson's disease and brain and spinal cord injuries.

Stem cells from Human Exfoliated Deciduous teeth (SHED) are adult mesenchymal cells, which can be obtained with little trauma. Also SHED eliminates the risk of developing Graft versus Host Disease. The SHED has remarkable proliferation rate and osteoinductive capacity. Dental applications include maturogenesis, wound healing and regeneration of oral and craniofacial structures.

This poster aims at the applications of SHED in Pediatric dentistry and other specialities including Pediatrics, Pathology, Surgery, Medicine, Biotechnology and Tissue engineering. The researches and applications of stem cell therapy will revolutionize disease management by regeneration of tissues.

Dental Home : An Interdisciplinary Approach

Deepthi Das, Korath Abraham K, Ektah Khosla

Pedodontics, Mar Baselios Dental College

The Dental Home is the ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated, and family-centered way. The Dental Home concept reflects an interdisciplinary approach that includes a Pedodontist, Pediatrician, Gynaecologist, dental hygienists, primary care health professionals, community-based health providers, and families. It is a child's first entry point into the health care system where we are in a position to identify early signs of dental disease. This presents a first opportunity to offer anticipatory guidance about oral health as well as preventive treatments. This e-poster throws light onto the importance of Dental Home in improving families' access to dental care.

Leaving Footprints on the Sands of Health Arena...

Deepthi Nirmal Gavarraju, Palakollu Anil Kumar, A J Sai Sankar, E Sreedevi, M Sridhar

Sibar Institute of Dental Sciences

With rapidly changing demographics and a paradigm shift in health sciences, an interdisciplinary approach integrating the knowledge, skills and experience of all the disciplines of medicine, dentistry and its associated fields into comprehensive treatment is necessary to maximize results. Furthermore, this multifaceted approach will allow the patient to benefit from radical care. As the delivery of care becomes more complex across a wide range of settings and the need to coordinate care among multiple providers becomes ever more important; developing well-functioning teams becomes a crucial objective throughout the health care system. This poster would emphasize the role played by a paediatric dentist in various allied sciences.

Creating Smiles On Innocent Faces

Deepthi R. Musmade, Chirag P. Sankhe, Vidyasagar Mopagar

Pedodontics and Preventive dentistry, Rural Dental College, Pravara Institute of Medical Sciences, Loni, Maharashtra

Disabled child is one who has a mental, physical, medical or social condition that prevent the child from achieving full potential when compared to other children of the same age. Disabled includes all handicapping conditions or combination thereof that a health professional might encounter.

Treating special child is one of the example of interdisciplinary approach. Due to their constellation of health problem, for a dentist to plan a treatment is still a perplexed situation.

The complex rehabilitation plan for the individual requires input from care provider from multiple disciplines including pedodontia, paediatrician, cardiologist, anaesthetics, MD (medicine), neurologist, orthopaedics, physiotherapist, psychologist, speech nurses, social workers. This type of interdisciplinary team approach is relatively new but is considered to be imperative for comprehensive assessment, treatment and management of children with special needs. This poster presents systematically all the team members from speciality branches which should be considered while treating these patients.

Building Smile and Tracking Speech

V. Deviprja, Anil Lazar Muttath, V. Suresh Kumar, K. Ramesh Vinayaka Missions Sankarachariyar Dental College

During the age of 3-4 years, maximum development of brain occurs along with speech. One of the dental diseases in this age group is S-ECC where there is severe loss of tooth structure resulting in speech defect and imbalance in stomatognathic system. Pedodontist does the preventive and curative management of S-ECC and defects in their speech need speech therapist to correct articulation defect and to maintain proper tone of oral muscles for equilibrium of stomatognathic system. Speech therapist uses MBGR protocol to analyse orofacial functions, mobility and muscular tone. Management of which includes oromotor exercises to correct mobility, tone of tongue and cheek, along with correct chewing pattern. This poster depicts the Interdisciplinary role of Pedodontist and Speech therapist in treatment of S-ECC, which restores self esteem of the child.

Professional Psychological Counselling – To Refer or Not?

Dhanalakshmi venkatesan, Joe Louis, Senthil Eagappan
Chettinad Dental College and Research Institute

It is common in India to treat the child against his/her will using forceful methods, rather than understanding the behavioral problem involved. This poster discuss about the importance of developing a criteria to refer a child showing behavioral problems or tantrums to a qualified professional psychologist.

Dental Stem cells- Boon to dentistry and medicine'

Dhanshri Shashikant Khade, Shashikiran N D

Dept. Of Pedodontics, School of dental sciences, KIMS Deemed University, Karad

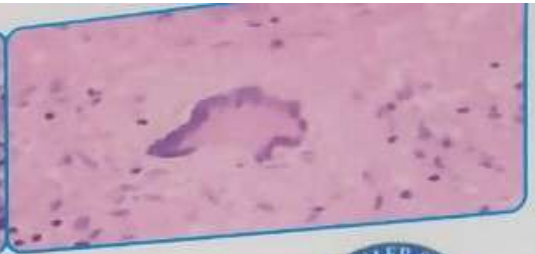
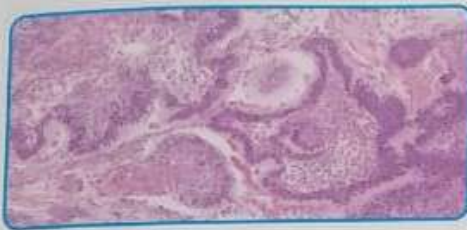
Stem cells are the body's 'master' cells that regenerate body's cells, tissues and organs. They are self replicating and able to differentiate into at least two different types of cells. Paediatric dentists are at the forefront of engaging their patients in potentially lifesaving therapies derived from their own stem cells located either in deciduous or permanent teeth. Dental stem cells have novel approach to treat the diseases of oral pathosis such as regenerative endodontics, periodontitis, in bio-tooth regeneration, in dental implantology etc. as well as medical diseases like diabetes, myocardial infarction, Parkinson's disease, corneal repair and bone defects due to their ability to form connective, neural, bone and dental tissues. Dental stem cells represent a powerful tool which holds a significant potential for advancement in the field of regenerative dentistry and medicine.

Infrared Powered Toothbrush

Dhiraj Wagh, Sudha Patil, Prashant Bondarde

Pedodontics, JMF'S ACPM Dental College and Hospital, Dhule

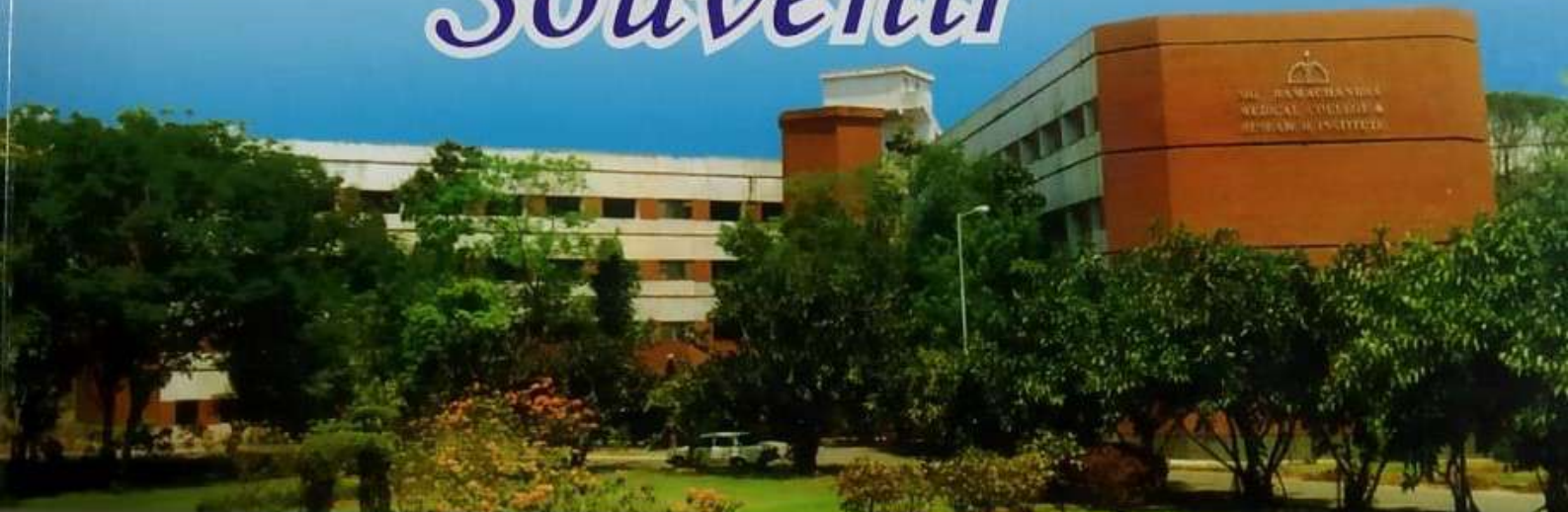
Infrared light is the part of electromagnetic spectrum that people encounter in daily life and is invisible to human eyes. Far infrared rays



XVII NATIONAL IAOMP POST GRADUATE CONVENTION

Pre-Convention 6th July 2018, Friday
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Souvenir



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sinusitis constitutes 6-9% of all the rhinosinusitis. Aspergillosis of paranasal sinuses is an infrequently reported disease which can occur in two forms; a non-invasive form that can clinically mimic non-specific chronic sinusitis and an invasive form that can simulate malignancy of the sinuses. Worldwide, *Aspergillus fumigatus* is the most common species, followed by *Aspergillus flavus*. Here we report a case of a 26 year old healthy female patient who presented with the complaint of forwardly placed teeth. Patient was symptomless and the diagnosis was made accidentally during the orthognathic surgery. Histopathological examination revealed abundant septate fungal hyphae with acute angle branching consistent with aspergillosis. Special stains such as Periodic acid Schiff and Gomori (or Grocott) methenamine silver stains confirmed the diagnosis of aspergillosis.

References:

1. Deepa AG, Nair BJ, Sivakumar TT, Joseph AP. Uncommon opportunistic fungal infections of oral cavity: A review. *Journal of oral and maxillofacial pathology: JOMFP*. 2014 May.
2. Cunha C, Aversa F, Romani L, Carvalho A. Human genetic susceptibility to invasive aspergillosis. *PLoS pathogens*. 2013 Aug 8.
3. Peral-Cagigal B, Redondo-Gonzalez LM, Verrier-Hernandez A. Invasive maxillary sinus aspergillosis: A case report successfully treated with voriconazole and surgical debridement. *Journal of clinical and experimental dentistry*. 2014 Oct.

051/CR/SP Clear cell odontogenic carcinoma- A rare case report

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Clear cell odontogenic carcinoma (CCOC) is a rare odontogenic tumor. Earlier, called as clear cell odontogenic tumor by Hansen in 1985, It is an aggressive tumor with local recurrence and regional nodal metastasis, histopathologically presenting as sheets, cords, or strands of odontogenic epithelial cells and clear cells in a hyalinising stroma. Here, we present a diagnostically challenging case of clear cell odontogenic carcinoma in a 50 year old female patient.

Introduction: Fine-needle aspiration cytology (FNAC) procedures may be used for rapid, cost-effective and apt diagnosis with reduced patient morbidity. Anatomical sites most commonly obtained from are breast, thyroid, lymph nodes and deep soft tissue lesions. The FNAC is usually refrigerated in case we need an additional smear or need to use additional stains for diagnosis. The tendency to refrigerate an FNAC specimen after smearing is quite usual, but it is important to know how long a FNAC will provide useful information if refrigerated.

Aim: The aim of this study was to evaluate the usefulness of a refrigerated FNAC specimen.

Materials and Methods: 5 FNAC specimens were collected. They were smeared on alternative days till the 15th day. The smears were immediately fixed in alcohol. They were stained by routine H&E protocol and mounted. The slides were viewed and scored by two observers. The scoring was based on the quality of information provided by the smear on the basis of cellular content, nuclear details, cytoplasmic details, uniformity of spread and background effect on the diagnosis.

Results: There was no significant change in the quality of information produced by the slides smeared on 15th day but there was evidence of clumping of cells after a week due to increased viscosity of the FNAC specimen. After a period of one month there was microbial overload of the specimen.

Conclusion: The FNAC specimens can be refrigerated for a period of 2 weeks to provide quality information, further which shows clumping of cells and microbial contamination.

051/OS/SP Expression and correlation of Carabelli trait in maxillary deciduous 2nd molar and permanent 1st molar in Chennai population - A cross sectional study

Beeula Rajakumari, Anu Priya, Sathish Muthukumar, Sreeja C.

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Aim & objective: The study determines the expression and correlation of Carabelli trait in the maxillary deciduous 2nd molar and permanent 1st molar in Chennai population.

The objective of the study is;

- Incidence of Carabelli trait in deciduous 2nd molar.
- Correlation of Carabelli trait among the deciduous and permanent maxillary molars.