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PERIPHERAL SEAL OF ORAL DEFENSE - LANGERHANS CELLS

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Objective : Langerhans cells (LCs) form a network of immune competent cells in the epithelium of oral mucosa and alterations in their number on exposure to tobacco might impair mucosal immunologic protection against mutagens and can have a role in epithelial dysplasia and carcinoma. Study design: Study was divided into 4 groups: formalin fixed paraffin embedded tissues from group A without tobacco habit (normal mucosa), and other groups with tobacco habits, B (leukoplakia without dysplasia), C (leukoplakia with dysplasia) and D (Squamous cell carcinoma). LCs were detected by using immunohistochemical marker CD1a and cells were counted in the epithelium using ImagePro software. Results: Comparison of mean LC count among study groups showed lesser number of LCs as compared to the normal mucosa. In carcinoma sections, LCs were least in number as compared to other groups. Quantitative analysis using Tukey test showed significant difference in LC count among study groups whereas Unpaired “t” test revealed non-significant comparison of mean LC count between smokers and chewers. Conclusion : Tobacco either in the form of smoking or chewing affects the peripheral immune arbiters of oral mucosa i.e. LCs.

ILL-DEFINED RADIOLUCENT IMAGE ON CBCT: TWO DIAGNOSTICALLY CHALLENGING CASES

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CBCT is considered by some to be the gold-standard diagnostic imaging in the field of oral radiology. However, this modality of imaging has important limitations. Of these limitations, interpreting ill-defined radiolucent areas proves to be a challenge. Case 1 presented with palatal gingival inflammation and a periodontal defect in the maxillary right lateral incisor area. CBCT depicted an ill-defined radiolucent area surrounding the crown and coronal half of the root of the impacted maxillary right canine with disruption of the cortices of the incisive foramen and surrounding bone. Case 2 presented with a semi-compressible soft tissue mass in the maxillary left posterior vestibule area of an extensively restored dentition. CBCT depicted an ill-defined radiolucent area at the apices of the maxillary left second molar with disruption of the cortex of the maxillary sinus. Rarefying osteitis was considered unlikely as no sclerotic reaction around the lesions was noted. Thus, the CBCT images were more consistent with malignant neoplasms. Histopathologically, Case 1 revealed a cystic wall of edematous stratified squamous epithelium and underlying connective tissue with scattered inflammatory infiltrates consistent with an inflamed dentigerous cyst. Case 2 revealed sheets of pleomorphic enlarged lymphocytes with frequent mitoses, tangible body macrophages and apoptosis. Immunohistochemical staining led to a diagnosis of non-Hodgkin’s lymphoma, diffuse large B-cell. As demonstrated, interpretation of ill-defined radiolucent images using only CBCT images continues to be a diagnostic challenge.

THE ORAL AND SYSTEMIC MANIFESTATIONS OF MAROTEAUX-LAMY SYNDROME (MUCOPOLYSACCHARIDOSIS VI): A CASE REPORT

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Objective: The mucopolysaccharidoses (MPS) are a rare group of genetic disorders characterized by the lack or malfunction of lysosomal enzymes needed for mucopolysaccharide metabolism, resulting in increased accumulation of acid mucopolysaccharides in various tissues. Maroteaux-Lamy syndrome (MPS VI) is an autosomal recessive disease caused by a mutation on chromosome 5. There is deficiency of arylsulfatase B which results in the accumulation of dermatan sulfate within lysosomes. This poster presents oral and systemic manifestations of a rare case of Maroteaux-Lamy syndrome with a brief review on present status and prospects of its management. **Clinical presentation:** A 7-year-old male was referred to one of the authors for treatment of limited mouth opening. The patient was a known case of Maroteaux-Lamy syndrome (MPS VI) diagnosed at age of 6 months. He had history of bone marrow transplantation when he was 3 years old and GVHD consequently. The patient was intellectually normal, but with short stature, some skeletal anomalies, and claw-like fingers and presented post GVHD hypermelanosis. Through CT and panoramic studies, bilateral hyperplasia of coronoid processes and hypoplasia of condyles, and dentigerous cyst-like follicles in the jaws were seen. **Intervention and outcome:** Follow-up sessions were scheduled for further evaluation and any possible surgical correction of the patient's mandible. **Conclusion:** Although in general oral and systemic features of our case are compatible with findings described in the literature, but such temporomandibular joint involvement found in this case, has not been reported yet. Such rare cases, if properly managed, will maintain their oral and general health for the remainder of their lives.

PRIMARY ORAL MELANOMA: A CASE REPORT AND LITERATURE REVIEW

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INTRODUCTION Primary oral melanoma is a rare neoplasm that arises from melanocytes lining the oral cavity. The tumor has an aggressive behavior with lack of early symptoms contributing to a delayed diagnosis and poor prognosis. In this report, we present a patient with a nodular melanoma of the maxillary gingiva with a pre-existing melanocytic lesion. **CASE A** 49-year old Hispanic male was referred for a painless, firm, dark brown exophytic growth on the left posterior maxillary gingiva with a significant increase in size over a 3-month period. An asymmetric brown-black pigmented flat lesion with a 10-year history was also present on the anterior maxillary gingiva extending to the anterior hard palate. Medical and social history along with head & neck examination were unremarkable. An incisional biopsy from the posterior maxillary gingiva was performed and showed infiltrating pleomorphic epithelioid cells with melanin pigment, plasmacytoid features and atypical mitotic figures. A punch biopsy from the anterior maxillary gingiva was also performed and showed hyperplastic epithelium with atypical melanocytes containing abundant melanin. Diagnoses of melanoma and atypical melanocytic proliferation, respectively, were rendered. PET scan revealed 3 positive ipsilateral cervical lymph nodes. Treatment was started with 4 cycles of Ipilimumab immunotherapy aimed at reducing the tumor size prior to surgical excision. At present, the patient has successfully completed chemotherapy with significant decrease in the tumor size. **CONCLUSION** Oral pigmented lesions have an extensive differential diagnosis. It is crucial for general dentists to understand that pigmented lesions with no apparent cause warrant a biopsy to establish a definitive diagnosis.

POST-RADIATION EXPRESSION OF MMP-2, MMP-9 AND MMP-20 IN HUMAN DENTIN

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Objectives: Radiation-related caries (RRC) is a severe oral toxicity that affects cancer patients who underwent head and neck radiotherapy (HNRDT). Although mainly attributed to the indirect effects of HNRDT, RRC is also attributed to direct effects of radiation on enamel, dentin and dental pulp. Therefore, the aim of this study was to test the hypothesis that HNRDT is able to generate direct damage to the micromorphological components of inorganic and organic matrix of teeth from patients with head and neck cancer (HNC). **Methods:** A total of 39 samples, including 22 teeth that received in vivo HNRDT and 17 teeth from non-irradiated patients with HNC were grouped into two experimental groups that evaluated ground sections (experimental group I) and histological sections prepared by demineralization (experimental group II). In group I, the preservation of the micromorphological components of dental tissues as well as the gelatinolytic activity by in situ zymography were investigated. In group II, the preservation of the micromorphological components of dental tissues and the immunohistochemical expression of MMP-2, MMP-9 and MMP-20 were investigated. **Results:** Structural preservation of all micromorphological components was observed, high gelatinolytic activity and intense expression of MMP-2, MMP-9 and MMP-20 were found in different areas of all specimens evaluated. It was not possible to identify significant differences between irradiated and non-irradiated specimens in any of the experiments performed. **Conclusion:** Tested hypothesis was rejected and the results of this study suggest that direct effects of HNRDT are not able to generate radiogenic destruction of inorganic or organic matrix of teeth.

MICROMORPHOLOGICAL AND IMMUNOHISTOCHEMICAL FEATURES OF THE DENTAL PULP IN HYPERBILIRUBINEMIA-RELATED GREEN TEETH

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Objective: Childhood hyperbilirubinemia is associated with intrinsic green dentin discoloration; enlargement of dental pulp chamber and root canals as well as an increased susceptibility to caries. This study aimed to assess the micromorphology of the dental pulp in childhood hyperbilirubinemia-related green teeth by studying its microvascular, neural, and extracellular matrix components. **Methods:** Macroscopic, radiographic, microscopic and immunohistochemical analysis were performed in 11 green teeth extracted due to advanced periodontal disease prior to liver transplantation in patients diagnosed with long-standing childhood hyperbilirubinemia. Pulp samples were processed and stained with hematoxylin and eosin (H&E) and further submitted to immunohistochemical reactions against alpha smooth muscle actin (\pm SMA), S100 protein, and vimentin antibodies, aiming to contribute to the characterization of the microvasculature, the innervation and the pulp extracellular matrix of the dental pulp. **Results:** Micromorphological and immunohistochemical studies identified normal blood vessels, neural bundles, and extracellular matrix components of the dental pulps in all 11 (100%) analyzed specimens. Additionally, the immunohistochemical study showed a normal expression pattern for all antibodies studied. **Conclusion:** Pulp of green teeth from patients who were diagnosed with childhood hyperbilirubinemia present a highly preserved micromorphological hierarchy with the preservation of microvascular, neural and extracellular matrix components.

FIBRO-OSSEOUS LESIONS OF THE JAW: A 29-YEAR RETROSPECTIVE ANALYSIS

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Background: Fibro-osseous lesions are a distinct group of jaw disorders, characterized by replacement of normal bone with abnormal fibrous tissue containing foci of mineralization of variable patterns. The prevalence of fibro-osseous lesions has not yet been studied in Saudi Arabia. Aims and Objectives: To report the relative frequency and specific characteristics of fibro-osseous lesions of maxillofacial region from single institution over 29-year period. Methods: A retrospective study was conducted, investigating cases diagnosed as fibro-osseous lesions from Histopathology Laboratory Archive of College of Dentistry, King Saud University between January 1984 and January 2013. Results: A total of 71 cases fulfilled the inclusion criteria out of 5,074(1.3%). Female predilection was noted (63.4%). Overall, ossifying fibroma was the most prevalent (50.7%). Followed by fibrous dysplasia (35.2%). The average age was 36 years old with range of 6 to 66 year. Ossifying fibroma was found to occur with greater frequency in the mandible (69.4%), while maxilla was more involved in fibrous dysplasia (59.3%). Conclusion: Fibro-osseous diagnosis is critical and requires in depth clinical, radiographic and histological investigation. Frequencies reported in the literature of fibro-osseous lesions vary regionally and demographically. Further clinical investigation must be conducted to understand the nature of the disease and provide better diagnostic tools.

PYCHNODYSOSTOSIS

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Objective: Pychnodysostosis (PD) is an autosomal recessive disorder caused by mutation in the Cathepsin K gene on chromosome 1q21. Failure of production and function of normal osteoclasts leads to abnormal bone remodeling and osteosclerosis.(PD) is characterised by several features distinguishing it from other sclerosing disorders. It is associated with consanguinity and has a prevalence of 1:100,000 to 1:500,000.Osteomyelitis occurs due to impaired white blood cells and poor vascularity to bone. We highlight a case of (PD), this rare disorder. Clinical presentation: A short statured male presented with anterior mandibular osteomyelitis and lower right eye lid infection. He also presented with macrocephaly, frontal bossing, hypertelorism, stubby fingers, leg bowing and obtuse mandibular angle. Intervention & Outcome: CT and bone scintigraphy images of the skeleton revealed an atrophic mandible, areas of medullary cavity absence and circumferential reactive immature periosteal new bone formation. There was an increased uptake of radio tracers by the epiphysis and jaw bones. An Orthopantomogram showed numerous un-erupted permanent teeth. Treatment involved incisional drainage and sequestrectomy. Conclusion: We report a case of (PD) with Osteomyelitis of the jaw and facial bones. Numerous oral manifestations exist, including retained primary, supernumerary, impacted or decayed permanent teeth, hypercementosis and a grooved palate. Differential diagnoses include Cleido-Cranial dysostosis, other forms of Osteopetrosis (Infantile, autosomal dominant) and Tricho-dento osseous syndrome. Success and different types of treatment (Limited and extensive surgery, antibiotic therapy and hyperbaric oxygen) for osteomyelitis in (PD) patients should be further studied.

CYTOLOGICAL CHARACTERISTICS OF ORAL MUCOSA IN PATIENTS WITH CHRONIC GRAFT-VERSUS-HOST DISEASE A CASE-CONTROL STUDY

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Chronic graft-versus-host disease (cGVHD) is the major complication of allogeneic hematopoietic stem cell transplantation (HSCT) and it is associated with increased risk of secondary cancers, including oral cancer. Objective: To investigate cell changes in oral mucosa of patients with oral cGVHD. Methods: We conducted a case-control study, double-blind, with 10 patients with oral cGVHD and 10 healthy controls. Exfoliative cytology in cGVHD group was performed in right and left buccal mucosa, tongue border and lower lip mucosa with a total of 40 slides. Clinical evaluation and analysis of medical records was also done. Results: oral cGVHD onset occurred at a median of 228.4 days after allogeneic HSCT and the lesions were classified as mild (50%), moderate (40%) and severe (10%). Dry mouth was the most common complaint (50%). The presence of desquamative squamous epithelial cells in cGVHD group included basal cells (0%), parabasal (12.5%), intermediate (85%) and superficial (100%) and the presence of inflammatory cells was seen in 62,5% of patients, including acute (12%) and chronic (100%) cells. The most cytoplasmic characteristics found in cGVHD group included deletion of cell edges, the cell edges folding, pseudoeosinofilia, metachromasy in 100% of patients. The most nuclear cell characteristics found in cGVHD group included karyopyknosis, active nucleolus, karyomegaly, multinucleation in 100% of patients. Papanicolaou criteria showed 9 patients in cGVHD group presented grade II and 1 patient presenting grade I in contrast with 10 patients of control group presented grade I. Conclusion: Desquamative cells in cGVHD group showed changes in cell morphology in contrast with control group. However, we did not observe criteria indicative of malignancy in either group.

THE USE OF LUGOLS IODINE IN VISUALIZATION OF ORAL EPITHELIAL LESIONS

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Oral Squamous cell carcinoma (OSCC) is the predominant form of oral cancer (more than 90%). The high mortality and morbidity of OSCC is mainly attributed to the advanced stage of disease at the time of presentation. Early detection of suspicious oral lesions is considered a valuable method of reducing associated mortality and morbidity. This study aims to assess the accuracy of iodine in visualization of oral epithelial lesions, and to assess the demarcation of extension of these lesions. Patients and methods: Lugols iodine was applied topically and the color changes recorded with digital camera. An incisional biopsy including stained and unstained areas was taken. A shallow incision was made demarcating the unstained area where possible. The specimen is fixed in 10% buffered formalin and sent for histopathologic examination. Results: Forty five biopsies from 28 patients were examined. The most frequent diagnosis was squamous cell carcinoma (60%) followed by keratosis (10%). The preclinical diagnosis based on Lugols iodine application was identical to the histopathology diagnosis in 26 patients (92.2%) {S.E= 0.05, P value = 0.05}. A clear margin was identified between SL and USL areas in 67.9% of cases. Conclusion: The study showed that Lugols iodine is an easy, safe, cheap method of visualizing oral epithelial lesions and differentiating epithelial carcinoma and dysplasia from other benign mucosal lesions. Although it has some limitations, its use is of great value in detection and diagnosis of oral cancer and dysplasia. Lugols iodine also showed clear demarcation of the exact extension of dysplastic epithelial lesions. Further studies are needed to add the use of Lugols iodine as a standard screening tool for oral cancer.

ORBITAL MULTILOCULAR HYDATID CYST: A RARE CAUSE OF EYE PROPTOSIS

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Objective: Hydatid disease is a zoonosis caused by the tapeworm species *Echinococcus*. It is transmitted to humans by egg ingestion from contaminated food and water, inhalation or skin contact from infected livestock. Endemic areas include poor socioeconomic or agricultural lands such as Australasia, Africa, and South America. Though immigration, Hydatid disease in non-endemic countries (Yang 2012) is possible. Hepatic and Pulmonary Hydatidosis are the commonest diseases. Hydatid cyst infection has been reported in the orbit, salivary glands, tongue, alveolar bones, and other areas. Isolated orbital Echinococcosis accounts for less than 1% of all Hydatid cysts (Alparslan 1990). **Clinical Presentation:** We report a nomadic female, 20 years old, complaining of unilateral left eye ophthalmoplegia, loss of vision and proptosis for 2 years. Occupational history allowed proximity with farm animals. **Intervention & Outcome:** Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) were used to highlight a multilocular cystic lesion involving the deep retro-orbital area. Histological examination revealed an Echinococcal organism residing within the Hydatid cyst. Hyaline membrane and some degenerate protoscolices could be seen. Systemic investigations for Hydatid disease yielded negative results. The woman was treated surgically. **Conclusions:** Orbital Hydatid disease should be suspected whenever a patient presents with swelling of the eye or space occupying lesions in endemic geographical areas where incidence of Echinococcosis is high. It is important to distinguish the disease early, as visionary loss, cerebral infestations and anaphylactic reaction (if surgically, rupture of the cyst occurs), are possible fatal complications of this disease.

THE FREQUENCY AND MANAGEMENT OF THE ODONTOGENIC KERATOCYSTIC TUMOUR (OKT)

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OKTs are a characteristic form of developmental odontogenic cysts arising from the cell rests of the dental lamina and factors inherent in the epithelium or enzymatic activity in the fibrous wall may contribute to their growth. They are locally destructive, highly recurrent; occur sporadically or in association with Gorlin Goltz syndrome. **Objectives:** To study the frequency of occurrence of OKTs, the distribution of OKTs in relation to gender and age, of OKTs location within the jaws and the outcome of treatment modalities. **Methods:** This was a cross sectional study on referred patients to National Ribat University hospital from 2006-2013. 58 patients were included. Ethical approval was obtained. Patient's hospital records were reviewed for study variables. The data was entered in a master sheet of Statistical Package for Social Sciences (SPSS version no.20) software. **Results:** OKTs comprised of 14.6% of all cysts of the jaws. The mean age affected was 35.2 years. It presented in males (58.62%) more than our female participants (41.38%) and presentations increased in the mandible (81.03%) compared to the maxilla (18.97%). Patients most commonly presented with swelling (80.5%), pain (41.5%), Discharge (31.7%), multiple swellings (7.3%), Tooth mobility (0%). Treatment modalities included enucleating with chemical fixation (41.5%), Enucleation with primary closure (36.6%), resection (17%) and decompression with marsupialisation (4.9%). Infection occurred highest in resection cases. **Conclusions:** Odontogenic Keratocystic tumours are benign neoplasms with aggressive behavior (WHO 2005) and high tendency of recurrence. The commonest clinical presentations of the tumour were swelling, pain and discharge.

CHILDHOOD HYPERBILIRUBINEMIA CHANGES THE DENTIN MICROMORPHOLOGY

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Objective: Pediatric patients with chronic liver diseases may develop green intrinsic pigmentation. It is stated anecdotally that patients with liver diseases in childhood have increased risk for dental caries secondary to changes in the micromorphologic structure. Therefore, this study tested the null hypothesis that hyperbilirubinemia is not able to affect the micromorphology of green teeth. **Methods:** Sixteen primary teeth were prepared and divided into 2 groups (green teeth group, n=8 and control group, n=8). Teeth were transversely fractured across the cervical third of the crown, dentin was etched with 37% phosphoric acid for 20s, sputter-coated with gold and examined in a scanning electron microscope (JSM, 5600 LV, JEOL Ltd., Tokyo, Japan). The mean density and mean diameter of dentin tubules as well as the thickness of peritubular dentin were compared between groups. **Results:** The analysis of the density of dentin tubules demonstrated that hyperbilirubinemia was able to decrease the density of the dentin tubules in the green teeth. Conversely, hyperbilirubinemia was not able to alter the diameter of dentin tubules in green teeth. Hyperbilirubinemia was also able to reduce the thickness of peritubular dentin of green teeth. This study rejected the tested hypothesis that hyperbilirubinemia would not be able to alter the micromorphology of dentin, since its results originally demonstrate that hyperbilirubinemia negatively affects the micromorphological features of the dentin in patients who developed green teeth. **Conclusion:** Childhood hyperbilirubinemia alters the dentin micromorphology by decreasing the density of the dentin tubules and the thickness of peritubular dentin in green teeth.

RECURRENT EOSINOPHILIC ULCER OF THE ORAL MUCOSA

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Objective: Eosinophilic ulcer (EU) is considered to be reactive condition of the oral mucosa. The most common clinical presentation of EU is a single painful ulcerative lesion of the tongue mucosa. Trauma has been suggested to be the causative factor but the exact etiopathogenesis of EU has remained obscure. We report a case of persistent, recurrent EU. **Clinical presentation:** A 54-year-old was referred to the Turku University Hospital with painful, persistent ulcer with tissue hyperplasia on the lateral border of his tongue. His medical history included blood pressure, asthma, gastrointestinal problems and anxiety. He had no history of previous trauma in the tongue. **Intervention and Outcome:** Excisional biopsy was performed. Histological picture showed ulcer with deep infiltration of lymphocytes, plasma cells, eosinophils and histiocytes. Immunohistochemistry was performed to characterize the inflammatory infiltrate. Large atypical mononuclear cells were positive for CD30. After the first disease episode, exophytic tumor like lesion recurred twice to the same mucosal area. Tissues consistently showed histological picture of eosinophilic ulcer with epithelial hyperplasia and vasculitis. Fine needle biopsy of the enlarged neck lymph node showed no signs of malignancy. **Conclusions:** EU occurs usually in a single episode and regresses spontaneously. They may also have varying clinical behavior and recurrent potential. Persistent lesions have to be surgically excised. Monitoring these patients is indicated. Histology of recurrent lesions has to be carefully examined to rule out malignant features. It has been suggested that EU would represent a spectrum of the CD30+ lymphoproliferative disorders. The etiological factors of EU have to be further studied.

RADIOSENSITIVE UNDIFFERENTIATED LYMPHOEPITHELIOMA LIKE-CARCINOMA (LEC) ON THE TONGUE

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Background:(LEC) is an uncapsulated squamous cell carcinoma with associated lymphoid stroma. It presents in the oropharynx, larynx, hypopharynx, oral cavity, major salivary glands (Eskimos and Asians), maxillary sinus, nasal cavity and other areas such as stomach (Dubey 1998). Case Summary: A 68 year old male presented with an ulceroproliferative lesion on the right dorsolateral tongue, lingual vestibule and adjacent alveolar mucosa at our clinic. He complained of the lesions presence for 6 months with pain on mastication. There were no associated signs or symptoms, other relevant medical history, lymphadenopathy or neurological deficits. Serological, immunofluorescence and nucleic acid hybridisation studies for Epstein Barr Virus yielded a negative result. Incisional biopsies from the lateral margin of the tongue and lingual sulcus proved a tumour composed of focal collections of cells with vesicular nuclei, prominent nucleoli and indistinct cytoplasm. The cells were positive for the epithelial membrane antigen EMA and negative for S-10 protein and CD1a. The tumour cells were surrounded with adjacent lymphocytes, plasma cells and some neutrophils. The latter may be due to ulceration. A biopsy from the lingual sulcus showed a non-specific chronic inflammatory cellular reaction. A unique feature of this tumour is its radiosensitivity (Ewing 1929). The patient responded well to radiotherapy and became free of the disease for 3 years during which time he received regular follow ups, after which contact with the patient was lost. Conclusion: We believe this is the first report describing a patient with undifferentiated (LEC) of the tongue. Owing to its rarity and current diaspora in treatment protocols, this is both an interesting and continuously evolving topic.

PROGRESSIVE BIMAXILLARY OSTEOLYSIS (GORHAM S DISEASE): CLINICOPATHOLOGIC PRESENTATION AND TREATMENT

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Background: Gorhams, vanishing bone disease or progressive osteolysis is a disease of unknown etiology resulting in progressive destruction of bony structures. The disease was characterised by Gorham in 1954. Case summary: We report an 18 year old female who was referred from the periodontal department with grade 3 tooth mobility without any periodontal pathology. A panoramic radiograph marked bimaxillary full height alveolar bone loss and resorption. CT revealed a generalised atrophy of the mandible and maxilla, as well as changes to the skull base. A 3-phase bone scan with Tc-99mMDP revealed a significantly abnormal high uptake of radiotracer in the mandible, maxilla, cervical spine C7, bilateral girdle joints, lumbar spine L3 & L4 and sacral S1. Laboratory investigations: full blood count, alkaline phosphatase, serum calcium, phosphorus as well as thyroid, parathyroid hormones and calcitonin were amongst normal range. These findings are suggestive of disseminated degenerative Gorhams disease. Biopsy of the extracted socket and associated parts of alveolar mucosal tissue were of normal histology. All other routine investigations were normal. Treatment involved full clearance of teeth followed by initiation of oral bisphosphonate therapy. A single implant on the lower arch was placed to monitor progress. Conclusions: Reconstruction of these bimaxillary defects remains a challenge in Gorham patients for both oral medicine practitioners and maxillofacial surgeons because of the unknown aetiopathogenesis of this progressive osteolysis, difficult therapeutic treatment and surgical intervention due to the relationship of anatomical structures to vital areas.

ORAL SEBACEOUS RETENTION PHENOMENON: REPORT OF AN UNUSUAL CASE

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Objective: Sebaceous glands are cutaneous appendages that are commonly found in the oral mucosa as Fordyce granules. We report an unusual case of oral sebaceous retention phenomenon and discuss its histopathological differential diagnosis from the rare sebaceous hyperplasia and sebaceous adenoma. **Clinical presentation:** A 39-year old male was referred for evaluation and management of an asymptomatic lesion on the right posterior mandibular ridge, noticed during routine dental examination a week ago. His medical history was non-contributory. Clinical examination revealed a small, yellowish, elastic plaque on the right mandibular retromolar region. **Intervention and outcome:** Excisional biopsy was performed with the provisional diagnosis of Fordyce granules. Microscopic examination showed a mucosal fragment occupied by dilated cystic structures lined by stratified squamous epithelium with scattered goblet cells. Those structures were in continuity with numerous lobules of mature sebaceous cells, mostly surrounded by a single layer of germinative cells, and contained amorphous eosinophilic material consistent with sebum. Normal minor salivary gland lobules with some dilated interlobular ducts were also identified. The diagnosis was oral sebaceous retention phenomenon. Three months since excision, no recurrence has been reported. **Conclusions:** Oral sebaceous retention phenomenon is very rare and in a review of the literature only one similar case was identified. Its significance lies in its pathogenesis and differential diagnosis from sebaceous hyperplasia and sebaceous adenoma.

PROGRAMMED CELL REMOVAL BIOMARKERS CALRETICULIN AND CD47 IMPLICATED IN ORAL LICHEN PLANUS

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OBJECTIVES: To investigate the expression of the programmed cell removal markers, Calreticulin and CD-47, involved in the eat me don't eat me signal in cancer pathogenesis in the epithelial and inflammatory cells of oral lichen planus (OLP) patients, and to investigate the association with clinical parameters such as Keratotic (KLP) and atrophic erosive(A/ELP)forms. **METHODS:** Included were biopsies of 78 OLP patients. The clinical data was collected from patients' charts. The expression of Calreticulin and CD-47 was immunomorphometrically analyzed in the epithelial and inflammatory cells (CRTep, CRTinf, CD47ep, CD47inf) and the results were correlated with the clinical presentation. **RESULTS:** The epithelial and inflammatory cells expressed Calreticulin (2.83 ± 6.62 and 5.13 ± 3.72) and CD-47 (7.92 ± 4.6 and 10.7 ± 7.16). The expressions of CD47ep and CD47inf were associated ($R=0.64$, $p<0.0005$). The expressions of CRTep and CRTinf were higher in A/ELP than in KLP patients (6.46 ± 0.76 and 9.38 ± 0.87 versus 4.2 ± 0.61 and 6.84 ± 0.91 , respectively, $p=0.002$ and $p=0.021$). The expression of CRTep was more abundant in males ($P=0.049$) and was associated with less involved sites ($P<0.009$). The expression of CRTinf was associated with the presence of skin lesions and symptoms ($P<0.034$ and $P=0.047$, respectively). Only in A/ELP patients, the expression of CRTep was associated with high expression of CD47ep ($R=0.6$, $P=0.004$). In A/ELP patients, both CD47ep and CD47inf were associated with lower age of the patients ($R= -0.48$, $P=0.03$ and $R= -0.54$, $P=0.01$). **CONCLUSIONS:** The pattern of expression of CRT and CD47 in OLP suggest an extensive programmed cell removal response both clinical forms of the diseases. A/ELP or Symptomatic patients may benefit from CRT targeted therapy in the future.

MANTLE CELL LYMPHOMA OF THE SOFT PALATE. A CASE REPORT AND REVIEW OF THE LITERATURE.

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Objective: Mantle cell lymphoma (MCL) is a well-defined, non-Hodgkin lymphoma of B-cell origin, usually associated with an aggressive clinical course, frequent recurrences and poor response to chemotherapy. To date, only few cases of MCL affecting the oral cavity have been reported. **Clinical Presentation:** A 69 year-old male was referred for evaluation of dysphagia and oropharyngeal pain of 20 days duration. **Medical history** was significant for MCL of the paranasal sinuses diagnosed 8 years ago. Following initial chemoradiotherapy, the disease remained under remission for 6 years. Subsequent relapses affecting the parotid, cervical lymph nodes and upper right arm were treated with partial disease remission. **Clinical evaluation** revealed a depressed ulcerated area of 3 cm diameter, with elevated erythematous margins, located on the left soft palate, extending to the uvula and left glossopalatine arch. **Computed tomography** showed a mass in the left lateral oropharyngeal wall extending into the soft palate. **Intervention and Outcome:** With a provisional clinical diagnosis of MCL relapse, a biopsy of the palatal lesion was performed. **Histopathologic examination** revealed diffuse submucosal infiltration by a medium sized neoplastic B cell population. **Immunohistochemical evaluation** disclosed positivity for CD20, CD5 and Cyclin D1. A final diagnosis of MCL was made and the patient was referred to the Hematology-Oncology Department for further evaluation and management. **Conclusion:** A rare case of MCL relapse affecting the oral cavity is reported along with a review of all published intraoral MCL cases. MCL is frequently associated with recurrences at various sites including intraoral locations necessitating long term monitoring.

MULTIPLE ODONTOGENIC CYSTS IN ASSOCIATION WITH ICHTHYOSIS.

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Objective: To document and discuss a case of congenital ichthyosis associated with multiple odontogenic cysts. **Clinical Presentation:** A female infant presented with congenital ichthyosis, suggestive of congenital ichthyosiform erythroderma, involving the scalp, trunk and limbs. The ichthyosis has persisted after 9 years and alopecia has become a prominent feature. The first odontogenic cyst presented at 4 years as a large well-defined radiolucency associated with the un-erupted right maxillary permanent central incisor. Since then, there have been 5 further episodes of cysts associated with maxillary teeth, typically with a pericoronal relationship. Mandibular involvement has not occurred. The most recent presentation (9 years) involved development of 3 large cysts, causing buccal bone expansion in the bilateral maxilla. **Histologic exam** has shown thick fibrous walls surfaced with variably hyperplastic, stratified squamous epithelial linings with scattered, prominent, non-specific calcifications. In one cyst, the epithelial lining showed a localized verruciform configuration. **Intervention and outcome:** There has been conservative surgical management with attempts to preserve the dentition. This has included cyst marsupialization and cyst enucleation with local bone debridement. **Long-term prognosis** remains uncertain since the cysts cannot be assigned to a specific category within current classification systems and the biologic behavior is not understood. **Conclusion:** The association of ichthyosis with histologically non-specific odontogenic cysts has not been previously described. However, these cysts occurring in the clinical context of ichthyosis appears similar to other aggressive odontogenic cysts such as the odontogenic keratocyst or glandular odontogenic cyst.

METASTATIC RENAL CELL CARCINOMA MASQUERADING AS PYOGENIC GRANULOMA OF THE TONGUE: A CASE REPORT
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Objective: We present a rare case where diagnosis of unknown renal cell carcinoma was rendered possible from biopsy of an oral lesion. **Clinical Presentation:** A 70 year old female patient presented to the Oral Medicine Clinic of A. Syggros Hospital of Dermatologic and Venereal Diseases complaining of a nodule of the tongue that was interfering with mastication and swallowing. Oral clinical examination revealed an ulcerated red nodule of the dorsum of the tongue measuring 1.5cm in largest diameter. **Intervention and Outcome:** The patients medical history was unremarkable. An excisional biopsy was made based on a provisional diagnosis of pyogenic granuloma. However, histopathologic evaluation revealed a neoplasm composed of clear cells arranged in an acinar pattern with prominent vascularization. No salivary gland tissue was present. The pattern was highly suggestive of metastatic renal cell carcinoma , clear cell variant and additional imaging studies were ordered. An MRI of the abdomen revealed a lobular mass of the right kidney with areas suggestive of necrosis. MRI of the head and neck revealed remnant signal only in the area of the tongue biopsy. The radiologic interpretation was renal cell carcinoma, clear cell variant. Immunohistochemical evaluation demonstrated that the tongue lesion demonstrated positivity for vimentin, EMA, CK7, CD10. It was found to be negative for p63, HMB-45, Mart-1, SYP, CgA, CD34. The patient was referred to an oncologist for further evaluation and treatment. **Conclusion:** We present a rare case of renal cell carcinoma, clear cell variant, metastatic to the tongue from an undiagnosed primary neoplasm. This case highlights the importance of biopsy and histopathologic evaluation of otherwise benign appearing nodules of the oral cavity.

PERIPHERAL ODONTOGENIC MYXOMA. REPORT OF A VERY RARE CASE AND REVIEW OF THE LITERATURE

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Objective. The aim of this work is to report and illustrate an unusual case of a peripheral odontogenic myxoma (POM); and to discuss and compare features of previous cases reported in English literature with the present one. **Clinical Presentation.** A 45 year-old female patient was presented to Diagnostic Clinic with a chief complaint of a firm, well defined, asymptomatic, non-mobile nodule located on the buccal aspect of the right upper canine and premolars attached gingiva. It had the same color as the surrounding oral mucosa, 1.5 cm in diameter, and 5 months duration approximately. The teeth involved were vital an there where no radiological evidence of intraosseous activity. An excisional biopsy under local anesthesia was performed; microscopically, a fibroblast proliferation was observed with hyperchromatic nuclei, without atypia or evident mitosis in all areas studied; they were in a loose and irregular, poorly vascular collagenous matrix within a thin, inconspicuous capsule that surround the lesion and separated from the rest of healthy tissue, in addition to lamellar bone at the periphery of cortical appearance. These findings were monotonous throughout the specimen. Histopathological evidence confirmed a diagnosis of odontogenic myxoma, and supported by clinical and imaging test, one of peripheral type. **Conclusion.** POM is a bening tumor that arises from remnants of odontogenesis located in gingiva and alveolar ridge, rare in relation to peripheral odontogenic tumors, that have non-aggressive behavior. It is important to consider tissue growths with similar clinical and histopathological features to provide accurate diagnosis emphasizing the good prognosis that can be achieved after conservative and conventional surgical excision.

EVALUATION OF P53 IMMUNOEXPRESSION IN PROGNOSTIC ASSESSMENT OF ADENOID CYSTIC CARCINOMA OF SALIVARY GLANDS - A GUIDE TAKEN FROM BREAST CANCER

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Salivary glands are tubuloacinar exocrine glands bearing histomorphological similarities with mammary glands. Akin to salivary malignancies, those arising in breast share comparable origin, nomenclature and histological features. Correlation of p53 immunoeexpression with clinical outcome in breast carcinomas is a well-established research. Therefore, we employed evaluation criteria of p53 immunoeexpression for breast cancer in salivary adenoid cystic carcinoma (AdCC); a high-risk tumor. Objectives: To document p53 immunoeexpression in salivary AdCC and correlate it with histopathological parameters in prognostic assessment of AdCC at microscopic level. Methods: 40 cases of diagnosed salivary AdCC were retrieved from tumor archives (2008-2012). Cases were reviewed and re-examined for tumor grade, histological subtype, perineural invasion (PI) and lymphovascular invasion (LVI). p53 qualitative and quantitative evaluation was done and correlated with histopathological parameters. Results: Results for histological subtype and tumor grade were similar, with 34 (85%) revealing cribriform subtype; grade II neoplasms with equivocal p53 staining; 18 p53-positive and 16 p53-negative neoplasms. All tumors with solid histological subtype (n=5, 13%); grade III neoplasms exhibited p53 positivity. PI was present in 77% (n=31) of tumors, among which 17 were p53-positive while 14 were p53-negative. LVI was present in 37 (92.5%) of cases, among which 22 had positive while 15 had negative p53 immunoeexpression. Conclusion: Grade III neoplasms with solid histological subtype bear strong positive correlation with p53 immunoeexpression. Thus making a histopathological predictive assessment of tumors biological behaviour can aid surgeon in treatment planning and post-operative patient management.