Findings: Oral cancer OSC2 cells were assessed following IFNγ treatment at specific time-points. DSPP and MMP20 mRNA expression levels, as well as ER stress, UPR and calcium homeostasis-related proteins, including GRP78, SERCA2b, IP3r, PERK and IRE1, were assayed by RT-PCR, while Bcl-2, Bax, PCNA and Cytochrome C protein expression levels were analyzed by Western blot. IFNγ treatment significantly downregulated mRNA levels of major ER stress regulator GRP78, and, to a lesser extent, UPR-related molecule IRE1, but without significant effect on PERK. Furthermore, IFNγ affected the mRNA expression levels of important ER calcium homeostasis molecules, downregulating SERCA2b and upregulating IP3r. Additionally, DSPP and MMP20 mRNA levels were significantly reduced by IFNγ. IFNγ treatment also hampered OSC2 migration (assessed by wound-healing assay), reduced cell viability (evaluated by MTT), and enhanced apoptosis (assayed by Annexin V/FITC flow cytometry). These changes were accompanied by induction of Bax and Cytochrome c and downregulation of PCNA and Bcl-2 protein levels.

Conclusions: IFNγ appears to inhibit oral cancer cell viability and migration, and drive apoptosis, possibly by regulating ER stress and UPR mechanisms. DSPP and MMP20 downregulation appears to correspond to the IFNγ-induced changes in ER calcium homeostasis in OSCC.

HAIRY LEUKOPLAKIA IN A PATIENT UNDERGOING ANTI-RETROVIRAL THERAPY.

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We report a case of hairy leukoplakia that developed in a patient undergoing anti-retroviral therapy. A 53-year old white male presented with mild erythema in the anterior maxillary gingiva and was managed with clobetasol gel, after excluding the possibility of candidiasis. Patient's medical history was significant for HIV, bipolar disorder, high blood pressure, high cholesterol, chronic bronchitis, smoking, and alcohol. His medications included Androgel, Axiron, atorvastatin, bupropion, clonazepam, finasteride, hydrochlorothiazide, lamotrigine, lisinopril, pantoprazole, Prezcobix, Trazadone, Truvada (200 mg emticitabine, 300 mg tenofovir), Ziprasidone, zolpidem, and baby aspirin. During one of multiple follow-up appointments, an asymptomatic white plaque was identified on right lateral tongue. Clinical differential diagnoses included hairy leukoplakia and hyperkeratosis secondary to trauma. Patient reported that his physician changed Truvada to Descovy (200 mg emticitabine, 25 mg tenofovir) since his last appointment. At the appointment six weeks later, the white plaque increased in size, and additional white plaques were found on the left dorso-lateral surface and dorsal tongue.

Two biopsies were taken, one from the right lateral and the other from left dorso-lateral tongue. The biopsies showed similar histological features including hyperparakeratosis with shaggy surface and bacterial colonization. Intracellular edema and pyknotic nuclei were noted in the spinous cell layer. Upper spinous cell nuclei were enlarged and glassy appearing, without obvious nucleoli or nuclear beading. An Epstein-Barr encoding region (EBER) in-situ hybridization was performed, which demonstrated presence of EBV. Blood testing, taken five days after the biopsy, showed a CD4 count and viral load within normal limits. The patient's physician prescribed a course of acyclovir 800mg for treating oral hairy leukoplakia. The oral lesions reduced in size at the follow-up appointment three weeks after completion of acyclovir therapy. Further follow-up information also will be presented.

CLINICAL, HISTOPATHOLOGICAL, AND MOLECULAR CHARACTERIZATION OF CARVAJAL SYNDROME WITH ORAL MANIFESTATIONS.

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Introduction: Carvajal syndrome is characterized by woolly hair, striated palmoplantar keratoderma and left-sided ventricular cardiomyopathy. It is inherited as an autosomal recessive disorder due to a homozygous mutation in the gene coding for desmoplakin, which truncates the C-terminal of the protein and maps to chromosome 6p24. Signs and symptoms of Carvajal syndrome include: woolly hair that is present from birth, palmoplantar keratoderma that develops after infancy, follicular keratoses on elbows, knees, face, abdomen and lower limbs, clubbing of fingers and rarely mucosal lesions. The desmoplakin (DSP) abnormality can result in arrhythmogenic ventricular cardiomyopathy.

Clinical Presentation: A 2 month old male of Ecuadorian descent presented with oral ulcerations and poor feeding as reported by his mother. The oral lesions were noted at 2 weeks of age. Bilateral dorsal tongue and palatal erosions with sloughing were noted on oral examination. Skin excoriations were noted at sites of electrocardiogram leads. It was also noted that the child had sparse woolly hair that extended on to the forehead and had a hoarse cry.

Intervention and Outcome: Biopsies of the anterior dorsal tongue, lingual epiglottis, and duodenal, gastric, esophageal and rectosigmoid mucosa were performed. The tongue and epiglottis surface epithelium consisted of discohesive squamous epithelial cells with interspersed inflammation and bacterial colonies. Esophageal biopsy showed suprabasilar separation from underlying lamina propria. Direct immunofluorescence studies were negative. Whole Exome Sequence Analysis revealed patient was compound heterozygous for the c.7623delT and c.7623delG pathogenic variants in the DSP gene.

Conclusion: The mucosal lesions of this syndrome can present intraorally, and have a rather unique histopathology characterized by dyskeratosis and discohesion. Patients with this syndrome require regular cardiac evaluations as the cardiac issues are of paramount importance.

MULTIFOCAL ORAL MUCOSAL MELANOACANTHOSIS IN A TEENAGER WITH ECZEMA, A CASE REPORT.

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Introduction: Oral melanoacanthosis is a rare, benign, mucosal pigmentation characterized by rapid growth which may clinically resemble mucosal melanoma. A biopsy is often indicated to confirm this diagnosis and exclude other pathologies. A reactive etiology is suggested, as melanoacanthosis typically

presents on trauma prone mucosal sites. Melanoacanthosis often occurs as a solitary lesion, however multifocal lesions have been reported. Histopathologic characteristics include pigment-laden, cytologically benign melanocytes with prominent dendritic processes scattered throughout acanthotic stratified squamous epithelium. Regression of the lesion has been observed following biopsy, surgical removal, and spontaneously.

Case Description: An 18 year old male presented for evaluation of spontaneous, multifocal oral mucosal pigmentation. The patient's medical history was significant for eczema which was refractory to topical steroid therapy. Extraoral examination revealed multiple eczematous lesions of the skin of the face, neck, limbs and focal involvement of lower lip. Intraoral examination revealed dark brown, well defined, flat pigmentation of the maxillary and mandibular attached gingiva, bilateral buccal mucosae, bilateral retromolar pads, soft palate, and focal involvement of the hard palate. A biopsy of the left buccal mucosa demonstrated classic histopathologic features of melanoacanthosis. He was subsequently referred to dermatology for evaluation and management of eczematous skin lesions. The patient's identical twin brother had no evidence of melanoacanthosis and no eczema.

Conclusion: Melanoacanthosis is a rare pigmented lesion of the oral cavity that often resolves post biopsy. This entity is rarely multifocal. The preferred term melanoacanthosis is used to highlight the reactive, benign nature of the condition.

PHOSPHATURIC MESENCHYMAL TUMOR IN THE MANDIBLE WITH ASSOCIATED ONCOGENIC OSTEOMALACIA: A CASE REPORT.

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Phosphaturic mesenchymal tumor (PMT) is a rare neoplasm that has been associated with oncogenic osteomalacia. This tumor secretes fibroblast growth factor-23 (FGF-23). Although other mesenchymal tumors can cause oncogenic osteomalacia, PMT is the most common mesenchymal neoplasm associated with oncogenic osteomalacia and accounts for 80% of such cases. Most patients are adults and the tumor can affect both men and women. The most common location for the tumor is the lower extremities followed by the head and neck area. Patients typically present with diffuse bone pain, bone fractures, and progressive muscle weakness. The laboratory studies usually reveal increased levels of FGF-23, hyperphosphaturia, increased alkaline phosphatase, normal serum calcium and parathyroid hormone levels, normal to low levels of 1,25-dihydroxyvitamin D and hypophosphatemia. The four common phosphaturic mesenchymal tumor microscopic subtypes are: phosphaturic mesenchymal tumor mixed connective tissue variant (PMTMCT), osteoblastoma-like variant, ossifying fibroma-like variant, and non-ossifying fibroma-like variant. The small size of this slow growing tumor and the non-specific clinical presentation may present a diagnostic challenge to clinicians. We present a case of a 48-year-old Haitian male who was diagnosed with PMT in the right angle of the mandible. Fewer than 15 cases of PMT presenting in the oral cavity have been reported in the literature. The clinical presentation, the laboratory findings, imaging characteristics, and the histopathologic features for this case are discussed along with the molecular genetic aspects, treatment and prognosis for this rare neoplasm.

STUDY OF THE BIOPSIES CONDUCTED IN THE CLINIC OF STOMATOLOGY OF A REFERENCE CENTER IN ORAL PATHOLOGY TREATMENT IN BRAZIL..

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Epidemiological research on maxillofacial lesions establishes and helps in the determination of demographic characteristics of oral pathology. It cooperates in planning the population needs and guiding dental surgeons in determining preventive actions and appropriate treatment.

Objectives: To perform a retrospective analysis of the biopsies done at the Stomatologic clinic of São Leopoldo Mandic Institute and Research Center (Brazil).

Methods: The study of all the biopsies done in the Stomatologic clinic that were performed between January 2012 and December 2017 is the aim of this research.

Results: It was observed that during the evaluated period, 2,892 appointments and 341 biopsies were performed. These biopsies were classified according to the order of higher prevalence of the diagnosed oral pathologies: 1) Reactional lesions (n = 82), 2) Cysts (n = 39), 3) "others" (n = 36), 4) Malignant neoplasms (n = 31), 5) Bone lesions (n = 26), 6) Non-neoplastic epithelial lesions (n = 24), 7) Infectious lesions (n = 20), 8) Inflammatory lesions of the salivary gland (n = 19), 9) Autoimmune conditions (n = 14), 10) Benign neoplasms (n = 10).

Conclusion: The study provided the possibility to observe the profile and prevalence of the pathologies that affected the patients attended in the Stomatologic clinic, in addition to assisting the professionals in future planning of this important service of diagnosis and treatment of oral diseases.

ATTITUDE AND USE OF TRADITIONAL HOME REMEDIES IN THE TREATMENT OF ORAL DISEASES AMONG EDUCATED PEOPLE IN MAKKAH AND MEDINA AREAS, SAUDI ARABIA: A CROSS-SECTIONAL STUDY.

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Objectives: The aim of this study was to investigate the attitude of an educated sample of population towards the use of traditional remedies in the treatment of various oral diseases in Makkah and Medina areas, Kingdom of Saudi Arabia.

Findings: The number of questionnaires answered was 125. The majority of respondents were female (85.6%), with an average age of 30 years (range 15-83 years). Most were highly educated with 75.2% having college education and 10.4% having graduate education, coming from families with variable levels of income, mostly moderate income families. Although 16% stated

[1]Formerly, Deceased