Findings: Over a thousand cases of odontogenic tumors were diagnosed in the Oral and Maxillofacial Pathology Unit between 1971-2018. The cases were reviewed and reclassified histopathologically in accordance with the 2017 WHO classification of head and neck tumors. The most common three tumors were ameloblastoma (n:366, including unicystic and peripheral ameloblastomas), odontoma (n:335, both complex and compound), and odontogenic myxoma/fibromyxoma (n:190), respectively. Malignant and peripheral odontogenic tumors are a small proportion of this series. The mean age is about 32 and there is a slight female predilection. The most common site is molar region of the mandible, followed by the anterior mandible and the anterior maxilla.

Conclusions: This is one of the largest series of odontogenic tumors to be described from the Europe. The location, site, gender and age of the patients are similar to that in other populations, however there are some differences about the frequency of the tumors types.

THE IMPORTANCE OF EARLY RECOGNITION OF ORAL POTENTIALLY MALIGNANT DISORDERS IN HIV-AIDS INDIVIDUALS..

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Objective: An increase in head and neck cancer (HNC) in HIV-infected individuals has been described in several epidemiological studies, suggesting that immunosuppression, even in treated patients, may play a role in the development of HNC. A thorough oral examination is essential for the identification of potentially malignant lesions, particularly in individuals at high risk to develop cancer. Thus, we report two cases of oral potentially malignant disorders occurring in HIV individuals.

Clinical Presentation: Case 1. A 39-year-old male HIV + since 2013. In 2015 presented an asymptomatic, slightly granular, red/white pediculate tumor on the left buccal mucosa, clinically compatible with multifocal epithelial hyperplasia with post-traumatic hyperkeratosis (251 cells/ml CD4+, undetectable viral load [VL]). Two weeks later, the lesion showed marked erosive/ulcerated areas, thus, a complete excision was done. The final diagnosis was in situ squamous cell carcinoma positive to HPV-16. Case 2. A 40-year-old male HIV+ since 2005, with histologically confirmed oral hairy leukoplakia, immunohistochemistry showed positive expression to EBV and negative to HPV. In 2015 presented a white well circumscribed homogeneous plaque, with a slightly rough surface and some satellite lesions, comparable with the previous hairy leukoplakia. The patient referred itching and burning sensation, so an excisional biopsy was done, showing hyper orthokeratosis with moderate dysplasia. The sample was negative for EBV and HPV. Both patients have remained asymptomatic, without signs of recurrence.

Outcome: The present cases evidence that some oral potentially malignant disorders may resemble other common lesions in HIV-patients that could be underdiagnosed, delaying an appropriate management and impacting prognosis. It is essential to highlight that HIV/AIDS patients should be closely monitored. Oral examination should be cautious even in the presence of lesions with a benign appearance.

A CLINICO- EPIDEMIOLOGICAL, GENETIC AND MOLECULAR ANALYSIS OF FOCAL EPITHELIAL HYPERPLASIA (FEH).

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Objectives: FEH is a benign mucosal condition often presenting in female children. The Indian descendants in America, Eskimos in Greenland and Canada, the Nahuatl population in Mexico and Aboriginals in Australia are commonly affected populations while in Africa; cases have been reported from the Khoi San population in South Africa and from Ghana and Nigeria. Clinically, lesions may be localised or multiple, flat (Papillomatous) or raised (Papillonodular) and are more common on the lips and buccal mucosa

Material and Methods: An epidemiological demographic screening project between 2015-2017 was undertaken for FEH by the NRU, Khartoum, Sudan. This assessed 647 persons in the age groups 5−38 years living in the province of 'Kalakla' (North, West and East), an area with a high population of FEH presentation as determined by health statistical analysis, ministry of health. Clinical assessment was carried out in all persons and genetical and molecular HPV subtyping was carried out in 30% of the assessed population.

Findings: 77% of persons were 5-15 years, 14% were between 16-27 and 9% were between 28-38 of age. Of 647 persons, 147 persons were clinically diagnosed with FEH and the lips were the commonest area affected. Mean age of presentation was 14 years (range: 5 − 23), 27% of persons with FEH had a familial relation and 132/147 were female. 30/147 underwent PCR analysis and HPV 32 was the most common subtype, followed by 1,11,12 and 13. 3 persons had no evidence of HPV infectivity. Finally, 12/15 persons who underwent genetical analysis were positive for HLA DRB 1*0404 expression.

Conclusion: Persons with FEH and their relatives are greatly affected by the aesthetic, medical and traumatic concerns related with this condition. Differential diagnosis includes other viral lesions, epidermodysplasia verruciformis, dysplastic PUVA keratosis and syndromes such as Neurofibromatosis and Cowdens.

INTERFERON GAMMA (IFNΓ) ANTITUMOR EFFECTS ON ORAL CANCER CELLS ARE ACCOMPANIED BY ER STRESS RESPONSE MODULATION AND DSPP ACTIVITY SUPPRESSION.

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Objectives: Expression of proinflammatory cytokines in various malignant neoplasms is widely considered to represent a host immune response to control tumor development. Recently, the role of interferon gamma (IFNγ) in oral squamous cell carcinoma (OSCC) and its relation with endoplasmic reticulum (ER) stress pathways were investigated. Dentin sialophosphoprotein (DSPP) has been involved in malignant transformation, invasion and metastasis of OSCC. The present study examined the effects of IFNγ treatment on ER stress, Unfolded Protein Response (UPR) and calcium homeostasis regulating mechanisms and the potential interaction with DSPP in OSCC cells.

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