MANDIBULAR METASTASIS OF THYROID CARCINOMA: A CASE REPORT.

B. Aldape, E. Lucio, R. Alshgroud, J.L. Tapia, A.Cano, U. Nacional Autonoma De Mexico, Incan Mexico, Private Surgeon Mexico, U. Of Buffalo.

Metastatic tumors of the jaws are rare lesions. Only an approximate 1% of malignant neoplasms metastasize to the mandible or maxilla. The most common primary sites for malignant neoplasm that metastasizes to the jaw are the breasts in women and the lungs in men. Metastasis of thyroid carcinoma to the jaws is uncommon. We present a case of thyroid carcinoma metastasizing to the mandible in a 73-year-old female that was initially diagnosed microscopically as ameloblastoma. Based on the presumptive diagnosis of ameloblastoma, a block resection was performed. A radiograph from the block resection revealed multilocular radiolucency with ill-defined border. Microscopically, the specimen consisted of neoplastic papillae lined by one and occasionally, several layers of cells with crowded ground glass oval nuclei. The tumor cells were positive for TTF-1, thyroglobulin, S-100 and CK AE1/AE3. A diagnosis of metastatic papillary carcinoma of the thyroid gland was rendered. Further imaging studies confirmed that the primary origin of the tumor was the thyroid gland. The patient died one year after diagnosis.

TARGETING HISTONE DEACETYLASE AND NFKB SIGNALING AS A NOVEL THERAPEUTIC STRATEGY TO MANAGE MUCOEPIDERMOID CARCINOMAS

M.Martins, V. Wagner, M. Martins, L. Almeida, K. Warner, C. Squarize, J. Nör, R. M. Castilho, Oral Pathology, Federal U. of Rio Grande do Sul, Porto Alegre, RS, Brazil and Periodontics and Oral Medicine, U.of Michigan School of Dentistry, Ann Arbor, USA, Department of Restorative Sciences, U.of Michigan School of Dentistry, Ann Arbor, USA Department of Restorative Sciences, U.of Michigan School of Dentistry, Ann Arbor, USA

Objectives: To evaluate the anti-tumoral effect of Emetine (NFkB inhibitor) and SAHA (HDAC inhibitor) as single and combined therapy to treat mucoepidermoid carcinomas (MEC) from the salivary glands. Methods: MEC tumor cells lines UM-HMC-1, UM-HMC-3A, UM-HMC-3B, and UM-HMC-5, were treated with Emetine, SAHA and the combination of both inhibitors. The effect of each therapy was evaluated by clonogenic assay and cancer stem cell content (CSC) using flow cytometry and sphere-forming assays. The identification of protein levels of NFkB was conducted using immunofluorescence assays against the p65 subunit of the NFkB complex. Results: We observed that Emetine alone is efficient in reducing

tumor cells, but not CSCs, whereas SAHA efficiently disrupted the population of CSCs, but failed in significantly reducing a total number of tumor cells. When combined, administration of Emetine and SAHA resulted in a complete depletion of tumor cells and its CSCs. Conclusions: In the present study, we provided novel and promising strategy to disrupt the population of CSCs and to impact cellular viability of MEC tumor cells. Most importantly, we demonstrated that the proposed combined therapy uses FDA-approved drugs, SAHA and Emetine, that aligns with the emerging efforts in repurposing know drugs to new applications.

DETECTION OF INFLAMMATORY CYTOKINES IN SJOGRENS SYNDROME PATIENTS USING A NOVEL SALIVARY COLLECTION DEVICE

H. Aljanobi, J. Kramer U at Buffalo the State University at NY,

Sjögrens syndrome (SS) is an autoimmune disease. SS is characterized by xerostomia and xerophthalmia. SS is challenging to diagnose, as many individuals struggle with symptoms of disease for many years before a definitive diagnosis is rendered. The current diagnosis of SS is complicated and involves invasive procedures, specifically collection of serum and minor salivary gland biopsy. Saliva is emerging as a diagnostic fluid, as it is easy to collect and contains valuable diagnostic material. Therefore, salivary collection devices are needed that allow for efficient collection and stabilization of salivary proteins. Objective: Our objective was to perform a pilot study to determine whether a novel collection device (RNAPro SAL) was superior to a conventional saliva collection method for detection of inflammatory cytokines. Moreover, we sought to establish whether saliva from SS patients had higher levels of inflammatory mediators as compared to healthy controls. Method: We collected saliva from SS patients (n = 9) and healthy controls (n = 8) using a conventional method and the RNAPro SAL. We analyzed saliva using a cytokine multiplex array. Results: We found that the conventional method was superior to the RNAPro SAL for the detection IL-1± and IL-1². In contrast, the RNAPro SAL was superior in detecting IL-2, IL-5, TNF², and IL-23. Finally, analysis of saliva collected with the RNAPro SAL device revealed that SS patients had higher levels of TNF² ($p = 0.02$) and lower levels of IL-5 compared to healthy controls ($p = 0.003$). Conclusion: Salivary cytokines may be useful in distinguishing SS patients and the RNAPro SAL may be a valuable novel collection device for salivary diagnostics.

ORAL PRESENTATION OF CROHNS DISEASE WITH KAPPA-RESTRICTED PLASMA CELLS IN A PEDIATRIC PATIENT

A. Eckel, D. Oda, U. of Washington, Schools of Medicine and Dentistry, Seattle
OBJECTIVE: To present a case of pediatric Crohns Disease (CD) highlighting first clinical presentation in the oral cavity and describing an unusual monotypic plasma cell response to the disease. CLINICAL PRESENTATION: A 15-year-old boy who was otherwise healthy was referred with three months history of generalized, painful and persistent oral ulcers and confluent cobblestone papules in the posterior buccal mucosa, vestibule and retromolar pad areas. He reported losing 10 pounds in the past year. INTERVENTION AND OUTCOME: Incisional biopsy of oral lesions demonstrated noncaseating granulomas with prominent plasmacytosis and patchy monotypic kappa light-chain restriction. Endoscopy and colonoscopy revealed scattered lesions throughout the ileum and colon which were histologically consistent with CD. CONCLUSION: CD is an immune-mediated chronic inflammatory disorder characterized by granulomatous inflammation of the transmural gastrointestinal tract from the oral cavity to the perianal area. About 40% of diagnosed CD pediatric patients manifest oral lesions; 8% presenting with multiple persistent superficial oral ulcers and 6% with cobblestone papules in the buccal mucosa and vestibule. It is however, uncommon that CD is initially diagnosed in the oral cavity, as was the case in this patient. Another unusual aspect of this case is the histologic findings of an atypical monotypic plasmacytic infiltrate which raised concern for a neoplastic process. In both CD and UC, the gut is known to be massively infiltrated with B cells and plasma cells, but their role in the pathogenesis of gut tissue damage remains unclear. This case shows that a large number of monotypic plasma cell infiltrates can also be found in the mouth in CD patients.

INTRAOSSEOUS HEMANGIOMA OF MANDIBLE AND MAXILLA: A RARE PRESENTATION OF SIX CASES

S.P. Chandra, E.Y. Chen, T. Cousin, D Oda, U. of Washington, Schools of Medicine & Dentistry, Seattle
OBJECTIVE: To present six cases of intraosseous hemangiomas of the mandible and maxilla (IHM) highlighting variability in clinical, radiographic and histologic characteristics. METHODS: Six cases of IHM were retrieved from the archives of the Oral Pathology Biopsy Service at the University of Washington. Clinical, radiologic, and histologic findings are described and are contrasted with those reported. RESULTS: A total of six cases of IHM were reviewed with a patient age range of 16-65, three females and three males. Five of six cases presented with mild swelling and one with significant expansion. Two caused tooth resorption and one was associated with pain and numbness. Three of the six cases were present in the body of the mandible, two in the area of extracted tooth #32 extending

posteriorly into the ramus, and one in the anterior maxilla between teeth #s 6 and 7. Five were radiolucent and one radiopaque. Of the radiolucent cases, two were unilocular and three multilocular. The radiopaque case was exophytic protruding lingually from the body of the mandible into the floor of mouth, simulating a large osteoma. Histologically, three were cavernous, one arterio-venous and two venous hemangiomas. All six cases were treated conservatively. Followup information of 1-7 years is available for all six cases; only one recurred within the first year of treatment. CONCLUSION: Soft-tissue hemangiomas are common in the head and neck area, especially on the tongue and in children under 10 years of age. However, intraosseous hemangiomas of the mandible and maxilla are exceedingly rare. We present six new cases with a wide spectrum of clinical, radiographic and histological presentations.

THE ROLE OF TONSILLAR HEALTH IN AUTOIMMUNE CONDITIONS OF THE ORAL CAVITY: A PILOT STUDY

M. Smith, M. Islam, D. Cohen, I. Bhattacharyya, S. Fitzpatrick, U. of Florida, Gainesville

Introduction: Tonsillectomy has been proposed as a treatment for various autoimmune conditions, most notably chronic plaque and guttate psoriasis. The literature on this topic is scant; however, some clinicians continue to recommend tonsillectomies when first-line treatment is ineffective, despite lack of definitive evidence. According to the limited data, patients with psoriasis may exhibit significant improvement in their condition and quality of life after tonsillectomies. To the best of our knowledge, the association of tonsillar health and tonsillectomy with oral autoimmune conditions has not been studied. Study Design: An IRB-approved survey study is being distributed to patients with autoimmune conditions of the mouth in the oral medicine clinic at the UF College of Dentistry. Inclusion criteria for enrollment are the following: 1.) Patients between the ages of 18 and 100 years 2.) Patients diagnosed and followed by the UF oral pathology or oral medicine faculty 3.) Patients with a diagnosis of aphthous stomatitis, benign mucous membrane pemphigoid (BMMP), erythema multiforme, graft vs. host disease, lichen planus (LP), linear IgA disease, lupus erythematosus, migratory glossitis, or pemphigus vulgaris. Results: Currently, 22 patients have been enrolled in the study: 15 LP, 5 BMMP, one with recurrent aphthous stomatitis, one with linear IgA disease, and 71 control patients. Fifty percent have a history of tonsillitis or strep throat, while 41% had tonsillectomies. Seven patients have experienced a sore throat around the time of a flare-up of their condition. Conclusion: Preliminary results indicate no statistical significance between tonsillectomy and

oral autoimmune conditions (Ç2, p=0.575); however, the study is ongoing, and patient accruals are continuing.

AN UNEXPECTED ORAL FINDING: A CASE OF GRANULOCYTIC SARCOMA

S. Shah, B. Brar, J. Phelan, R. Kerr, New York U College of Dentistry

OBJECTIVE: Acute myeloid leukemia (AML) is a myeloproliferative malignancy with 20,000 new diagnoses and 10,000 deaths in the United States annually. A rare manifestation that may accompany or precede the disease is granulocytic sarcoma (GS). Also known as myeloid sarcoma or chloroma, GS is an extramedullary tumor composed of immature myeloid cells. We present a case in which oral findings assisted in the diagnosis of this hematopoietic malignancy. CLINICAL PRESENTATION: A 61-year-old female with a 1-month history of progressive fatigue, low-grade fevers and intra-oral lesions was seen by three outside dental and medical providers with no diagnosis rendered before presenting to NYU College of Dentistry. The physical examination revealed a buccal mass and generalized gingival enlargement. INTERVENTION: An incisional biopsy was performed immediately and laboratory tests were ordered. These tests demonstrated a significantly increased white blood cell count and a markedly decreased platelet count. 90% blasts were seen on peripheral smear. Magnetic resonance imaging showed a mass within the left buccal space. This was found to be granulocytic sarcoma upon histopathologic evaluation. Bone marrow biopsy subsequently confirmed the diagnosis of acute myeloid leukemia with normal cytogenetics. The patient underwent induction chemotherapy and achieved complete remission with resolution of the mass and gingival enlargement and is being evaluated for allogeneic stem-cell transplantation. CONCLUSION: AML patients can present with oral manifestations, including granulocytic sarcoma. This case highlights the need for a careful history and examination followed by appropriate laboratory testing to determine the diagnosis and treat the patient as early as possible.

CENTRAL INFLAMMATORY MYOFIBROBLASTIC TUMOR OF THE JAWBONES: AN UNCOMMON ENTITY WITH AN UNUSUAL IMMUNOPROFILE

I. Allon, O. Nachlieli, A. Zaguri, A. Livoff, Barzilai Medical Center, Askelon, Israel; Ben-Gurion University, Beer-Sheeba, Israel,

Objective: Inflammatory myofibroblastic tumor (IMT) is an extremely rare lesion found in the maxillofacial region. Its frequency is even lower when found within

bone. The purpose of this study is to analyze the clinic-pathologic characteristics of IMT of the jawbones. Methods: Case presentation and literature analysis of IMT of the jawbones. Cases were analyzed in regard to their clinic-pathologic correlations with emphasis on the clinical presentation, morphological features, treatment and outcome. Results: A central IMT in a seven years old girl is presented. The clinico-radiological appearance was of an osteolytic expansile lesion of the right mandible, eroding and resorbing the buccal and lingual cortices, as well as the roots of adjacent teeth. The lesion was composed of zones of plump spindle cells with an appearance suggestive of myofibroblasts, with scattered lymphocytes. Interestingly, the lesional myofibroblastic cells were H-Caldesmone positive in addition to myofibroblastic markers and ALK-1. The literature analysis yielded 24 cases of IMT of the jawbones. The age range is wide 7-75years. The clinic-radiologic appearance is usually of an

NON HODGKIN'S LYMPHOMA OF THE LIP: A RARE ENTITY

Kaplan, A. Shouster V. Reiser, G. Frenkel Rabin Medical Center, Petach Tiqva, Israel; Sourasky Medical Center, Tel-Aviv, Israel

Aim: To investigate clinico-pathological features of lymphoma of the lips, and review the literature. Materials and Methods: Retrospective analysis and review of English literature, 1996-2016. Results: Analysis included 23 cases, 7 new cases and 16 from literature, 12 M: 10 F, age 7-82 years. Four occurred in children, mean age 10.1; 18 in adults, mean 61.1 years. The lower lip was involved in the majority of cases (17, 73.9%). 15 (65.2%) were isolated to the lips, 8 (36.4%) were multifocal. Nine (40.9%) occurred in association with Sjogren's syndrome, of which one also had Hashimoto thyroiditis. IgG4-related disease and HIV were reported in one case each. The lip salivary glands were involved in most cases (18, 81.8%); 3 (13.6%) showed only cutaneous involvement. The typical presentation was single or multiple nodules (15, 68.2%), with surface ulceration in only two (9%). Constituent symptoms were absent in all cases, paresthesia was reported in one (4.5%). The majority (18, 78.2%) was extranodal marginal zone B-cell lymphoma - mucosa-associated lymphoid tissue lymphoma (EMZB-MALT), and one case each was mantle cell, NK-T cell, CD30 positive and plasmablastic lymphoma. Conclusion: The lips seem to have a unique pattern of non-Hodgkin lymphoma dominated by EMZB-MALT lymphoma, rarely other types. In more than half, neither Sjogren's syndrome nor other chronic inflammation was identified. Lesions tend to present as asymptomatic slowly progressing, non-ulcerated submucosal masses. Lymphoma should be considered even in the absence of constituent symptoms, as most cases showed none. Although the

number of reported cases is rather small, disease course is usually prolonged and prognosis seems to be good.

STRATICYTE, A COMPLEMENT TO HISTOPATHOLOGY FOR CANCER PROGRESSION RISK ASSESSMENT OF ORAL EPITHELIAL DYSPLASIA.

J. Hwang,Y. Gu, M. Shen, B. Dickson, R. Ralhan, P. Walfish, K. Pritzker, D. Mock, Proteocyte Diagnostics Inc. Toronto, Canada and U. of Toronto, Canada.

Objective: Straticyte, a test to determine oral potentially malignant lesions' (OPL) risk to progress to invasive cancer, was previously shown to be a more effective prognostic assessment than the current standard, histopathological dysplasia grading [Hwang et al., 2017]. In this follow-up study, our aim is to confirm the prognostic potential of Straticyte using an independent cohort of oral biopsy cases. Methods: Using Visiopharm image analysis system, we analyzed 51 oral biopsy samples from an independent OPL cohort with known outcomes and a follow-up history of up to 12 years, to validate Straticyte, an individualized 5-year risk assessment for progression of oral potentially malignant lesions to invasive squamous cell carcinoma. Results: Straticyte classified the OPLs more accurately than histopathological dysplasia grading for risk for progression to cancer over five years. The sensitivity of low-risk vs. non-low-risk (medium- and high-risk) Straticyte groups was 100% compared to 68% for mild vs. non-mild (moderate and severe) dysplasia groups. Furthermore, the False Negative Rate (FNR) and Negative Predicitive Value (NPV) for Straticyte was 0% and 100%, respectively, whereas the FNR and NPV for dysplasia grading was 32% and 38%, respectively. Conclusion: Through a more quantitative and objective assessment of oral epithelial dysplasia, Straticyte is poised to becoming a useful prognostic tool, as a complement to histopathology, for cancer progression risk assessment of OPLs. Reference: Hwang et al., Individualized five-year risk assessment for oral premalignant lesion progression to cancer. Oral Surg Oral Med Oral Pathol Oral Radiol. 2017;123:374-81.

PSAMMOMATOID JUVENILE OSSIFYING FIBROMA CAUSING EXUBERANT ORBITAL DYSTOPIA

T. Leite, P. Bartholo, W. Miranda, B. Andrade, M. Agostini, M. Romanach, Federal U. of Rio de Janeiro - Brazil, Hospital Estadual Adão Pereira Nunes - Rio de Janeiro, Brazil

Objective: Psammomatoid juvenile ossifying fibroma (PJOF) is an agressive fibro-osseous neoplasm that mainly occurs in the periorbital, frontal and ethmoid bones of young individuals. We present a case of PJOF in the frontal bone causing

exuberant orbital dystopia. Clinical presentation: A 20-year-old male patient presented unilateral orbital dystopia with a 10-year duration, with no symptoms or vision compromise. Extraoral examination revealed an asymptomatic regular swelling measuring 5 cm, located in the supraorbital region of the frontal bone. Computerized tomography revealed an expansive well-circumscribed lytic lesion involving the left frontal sinus. Patient was submitted to excisional biopsy under general anesthesia. Microscopical evaluation revealed a highly cellular fibroblastic stroma containing numerous concentric and lamellar calcifications. Tumor cells were negative for epithelial membrane antigen, ruling out meningioma. Final diagnosis was of PJOF of the frontal bone. Intervention and outcome: Cranioplasty was performed using a prefabricated polymethylmethacrylate prosthesis, which reduced the orbital dystopia, improving the quality of the patients life. No signs of recurrence were observed after 12 months of follow-up. Conclusion: PJOF is an aggressive tumor that may affect the frontal bone of young patients, rarely causing exuberant orbital dystopia.

ASSESSMENT OF AN ORAL RINSE, QUALITATIVE, POINT-OF-CARE ASSAY TO PREDICT HEAD AND NECK SQUAMOUS CELL CARCINOMA (HNSCC)

M. Donovan, G. Ginn, E. Franzmann, Icahn School of Medicine at Mt. Sinai. NYC. NY, Vigilant Biosciences, Ft. Lauderdale, Florida and the University of Miami

Objectives: Head and neck squamous cell carcinoma (HNSCC) is the 6th most common cause of cancer mortality throughout the world affecting some 50,000 people in the US and 600,000 worldwide each year. The ability to detect the disease at an earlier stage could have significant impact on overall outcome. We sought to evaluate performance of a novel qualitative, point-of-care device (POC) which evaluates the presence of CD44 and total protein in an oral saline rinse solution to predict HNSCC. Methods: Saline oral rinse specimens (~5ml) from 134 patients (38 HNSCC cases; 96 controls) were evaluated for CD44 and TP levels by submerging the POC device for 20 minutes. Two independent operators reported results; positive test: CD44 band observed OR TP levels were >/= 2 or 3 (graphic scale 1-4). A weighted kappa was used to assess agreement between operators along with sensitivity, specificity and the NPV. Results: The mean age of HNSCC (cases) was 60 years, 60% male, 97% white and 74% smokers vs. (controls): 43 years, 28% male, 96% white and 0% smokers. Agreement between operators with a weighted kappa was 75% (95% CI: 65.91% - 83.34%) for CD44 and 72% (95% CI: 65.03%-79.79%) for TP, McNemar's p-value 0.97 and 0.91, respectively. The sensitivity ranged from 70-84% with a specificity of 30-50%, and was dependent

upon an operator selected TP value of 2 vs. 3 as a positive test result. Using a disease prevalence of 9.27%, the NPV was >90%. Conclusions: POC device reliably identifies elevated levels of either CD44 or TP in oral salivary rinses. Positive or Negative results warrant individual assessment aligned with clinical judgment. Additional studies underway to assess prospective performance.

POLYMORPHOUS LOW GRADE ADENOCARCINOMA CELLS: ESTABLISHMENT AND CHARACTERIZATION OF A PRIMARY CULTURE OF CELLS

V. Montalli, L. Teixeira, S. Oliveira, T. Toledo, E. Martinez, São Leopoldo Mandic Institute and Research Center V Araújo, São Leopoldo Mandic Institute and Research Center, State University of Campinas

Cell lines are exceptional for the fundamental study of the cellular pathways and for disclosing critical genes involved in cancer. This characterization provides important insights about the complexity of the polygenetic etiology of cancer and the biological mechanisms involved, reinforcing its value as models in oncobiology. Also the characterization of cancer cell lines is essential for the development of new anticancer drugs, understanding the action mechanisms and the resistance/sensitivity patterns of chemotherapeutics already in use in cancer treatment and the development of more targeted anticancer drugs. Objective: The aim of the present study was to establish a primary cell culture derived from polymorphous low grade adenocarcinoma (PLGA). Methods: The neoplastic cells were derived from a 57-year-old female patient diagnosed with PLGA. A fragment of the tumor was collected and submitted to enzymatic digestion followed by centrifugation on a Percoll gradient. The cell population was characterized by means of immunofluorescence and detection of PRKD1 gene mutations. Results: Epifluorescence analysis of the primary culture revealed that the malignant epithelial cells were predominantly polygonal in shape and positive for cytokeratin 7, vimentin and S100. The restriction digestion assay showed that the neoplastic cells possess PRKD1 gene mutations. Conclusion:The establishment of primary cell culture derived from PLGA could be considered a useful tool for molecular analysis of this salivary gland tumor.

LICHENOID AND GRANULOMATOUS STOMATITIS: 8 NEW CASES AND A DECADE OF HINDSIGHT.

G. Mainville, S. Sadeghi, Y. Rawal, C. Bissonnette, N. Rei, A. Kauzman, U de Montreal, Montreal, Quebec, U of Washington, Seattle, WA

Objective: Lichenoid and granulomatous inflammation brings to mind two distinct sets of differential diagnoses. To date, the concurrent presence of both patterns of inflammation in the same oral biopsy has only been described by Robinson et als 2006 study on Lichenoid and Granulomatous Stomatitis (LGS). One additional case was recently reported at the AAOM annual meeting. We present 8 additional cases of LGS and summarize the clinical, microscopic and follow-up data including previously published cases. Results: All patients were female, between 33 and 81 years of age (mean 58 years) and had similar symptoms of intermittent irritation, swelling, redness and burning of the upper labial mucosa. Swelling and erythema of the facial maxillary gingiva was present in 3 out of 8 patients. Microscopically, the lesions showed interface lymphohistiocytic mucositis, non-caseating granulomas and perivascular/perineural lymphoid nodules. 5 out of 8 cases had superimposed candidiasis. Most patients reported relief of symptoms after topical antifungal therapy. The lesions persisted, remained localized and waxed and waned over time regardless of topical steroid application. They were not associated with the development of systemic inflammatory diseases. Considering all previously reported cases, LGS shows a clear female predominance (M:F 2:13), a mean age of 59 years at the time of diagnosis and a consistent clinico-pathological presentation. Conclusion: LGS is a rare oral inflammatory condition characterized by a distinctive clinical and microscopic presentation. Clinico-pathologic correlation is required. The etiology of LGS remains unknown. The condition does not seem to indicate an underlying systemic disorder. Symptomatic treatment and clinical follow-up are recommended.

WARTHIN'S TUMOR: THE ROADMAP TOWARD MALIGNANCY

I. Allon, Y. Kravchenko, O. Nachlieli, A. Livoff, Barzilai Medical Center, Ashkelon

Objective: Unlike pleomorphic adenoma, the most common salivary gland tumor, a malignant transformation of Warthin's tumor, the second most common parotid salivary gland tumor is a rare event. Moreover, the tumor is considered so indolent, that there are current examples of Warthin's tumor that are kept under follow up and are not treated. Method: Here we present a case of an invasive micropapillary salivary duct carcinoma arising in a long standing Warthin's tumor in a smoking 50 years old male. Results: Besides presenting the case, the potential roadmap towards malignancy in Warthin's tumor is discussed. Malignancy may arise either in the lymphoid component, or in the epithelial component, the first considered much more common than the second. Epithelial malignancy in a Warthins tumor may occur in three forms: the most common is a coexistent separate neoplasm, the second is a metastasis to the lymphoid component of Warthins tumor, and the least

common is a primary carcinoma arising from the ductal component of the tumor. The most common carcinoma arising in the epithelial component of Warthin's are squamous cell carcinoma, mucoepidermoid carcinoma, oncocytic adenocarcinoma, undifferentiated carcinoma, and adenocarcinoma NOS. Conclusion: The diagnosis of malignant transformation of Warthins tumor to carcinoma is based on the presence of a pre-existing Warthins tumor, presence of transitional zones from benign oncocytic to frankly malignant epithelium, presence of an infiltrating growth in the surrounding lymphoid tissue, and exclusion of metastasis to lymphoid stroma from an extrasalivary primary carcinoma.

AMELOGENESIS IMPERFECTA WITH PERICORONAL ODONTOGENIC FIBROMA - LIKE HAMATOMAS

A Kiyani,R Ijaz, Riphan International U

OBJECTIVE: Only a handful of cases of amelogenesis imperfecta in association with pericoronal odontogenic fibroma-like hamartomas have been described in the literature. Almost all these cases have been from Africa, or in patients of African-descent. Here we describe a case in a Pakistani female. CLINICAL PRESENTATION: A 21-year-old healthy female was referred to the Oral Diagnosis Clinic at Riphah International University, College of Dentistry for evaluation of her

TRAUMATIC ULCERATIVE GRANULOMA WITH STROMAL EOSINOPHILIA IN PATIENTS WITH SOLID ORGAN TRANSPLANTATION: A SERIES OF SIX CASES

R. Vargo, S Satishchandran, U. of Pittsburgh School of Dental Medicine, Pittsburgh, PA, EA Bilodeau, U. of Pittsburgh School of Dental Medicine, Pittsburgh, PA

OBJECTIVE: We present a series of traumatic ulcerative granulomas with stromal eosinophilia (TUGSE) in patients with solid organ transplant. The Epstein-Barr virus-positive mucocutaneous ulcer (EBVMCU) is in the TUGSE differential diagnosis in this patient population, and we sought to investigate the presence of EBV-positive and CD30-positive cells in these TUGSEs. METHODS: Cases of TUGSE in solid organ transplant patients from 2008 to present were retrieved from the U. Pitt. Oral Pathology Biopsy Service archives and reviewed. Clinical and demographic data were collected. EBER in situ hybridization (ISH) and CD30 immunohistochemistry were completed with IRB approval. RESULTS: Six cases were identified. The mean age was 60.5 (53-74). The gender ratio was M:F=1:5. The sites were the buccal mucosa (2) and tongue (4). A history of trauma was

noted in 2 cases (33%). The transplants included liver (1), pancreas/kidney (2), kidney (1), lung (1), and heart /liver (1). All cases showed ulceration, lymphocytes, muscle degeneration, and many eosinophils. No atypical B-cell blasts with Hodgkin/Reed-Sternberg (HRS) cell-like morphology were seen. EBER ISH revealed only 2 cases with rare EBV-positive cells. In all cases, focal CD30 positivity was noted, with 4 cases (67%) demonstrating rare to scattered larger atypical mononuclear cells exhibiting positivity. CONCLUSION: The absence of both numerous EBV-positive cells and diffuse CD30 staining rules out EBVMCU, an entity with differing etiology, histopathology, and ISH findings than TUGSE. The inflammatory infiltrate of chronic ulcers in transplant patients should be scrutinized for atypical B-cell blasts with HRS cell-like morphology prior to ordering EBER ISH, as these cases may represent TUGSEs, even without a history of trauma.

PRIMARY PRIMITIVE NEUROECTODERMAL TUMOR (PNET) OF MANDIBLE

M. Ghazi, A. Jahangirnia, Tehran, Iran

Objective: Diagnosis and treatment plan for Primary Primitive Neuroectodermal Tumor (PNET) of mandible. PNET / Ewing Sarcoma represents wide terminology which includes broad spectrum lesions affecting central or peripheral nervous system as well as bone or soft tissue at any site of body. However cases with mandibular involvement are extremely rare events, hence their diagnosis poses a great challenge. Clinical Presentation: We recently were confronted by an enlarged mandibular radiolucency in a 10 year old female patient. Related histopathology, IHC, and radiographic evidence are presented. Intervention and outcome: In this presentation we will demonstrate by combining histopathology and IHC investigations with clinical and radiographic evidence accurate diagnosis of PNET is made possible. Further, we will discuss the detailed treatment approach and chemotherapeutic responsiveness by IHC evidence during the 15 months of close follow-up. Conclusion: A rare case of PNET in mandible has been successfully diagnosed and treated in a young patient. Evidences presented could be considered for future diagnosis and treatment of these type of rare cases.

NEUROMATOUS ODONTOGENIC OSSEOUS HAMARTOMA OF THE GINGIVA.

R. Alshagroud, J. Tapia, M. Sorensen, A. Aguirre, U. at Buffalo, The University State of New York and Private Practice, Prescott Valley. Arizona,

Hereby, we describe the microscopic and immunohistochemical characteristics of an unusual hamartomatous proliferation of the gingiva. A 55 year-old female presented with a nodule on the left vestibular mandibular gingiva of bicuspid teeth. A CBCT scan showed the presence of irregular calcifications in the soft tissue. A clinical differential diagnosis included peripheral ossifying fibroma and peripheral odontogenic fibroma. Microscopic examination showed pseudoepitheliomatous hyperplasia. The subjacent stroma presented a proliferation of spindle mesenchymal cells regimented in fascicles arranged both perpendicular and parallel to the surface epithelium. In addition, islands of basaloid odontogenic epithelium, some displaying prominent nuclear palisading, were both entrapped and amidst the spindle cell fascicles. Towards the base of the specimen, vital thin semicircular bone formation was seen almost completely encircling spindle cell fascicles. The spindle cell fascicles were S100, neuron specific enolase (NSE) and vimentin positive. Axons were identified in the spindle cell fascicles with Bodian and neurofilament (NFP) stains. In addition, the pseudoepitheliomatous hyperplasia and odontogenic epithelial islands were positive for CK5/6, CK14 and CK19. Low Ki-67 scores were observed in the pseudoepitheliomatous hperplasia, odontogenic epithelium and spindle cell fascicles. Similar lesions have been reported under the names of oral plexiform schwannoma (OPS) and neuroepithelial hamartoma (NH) of the oral cavity. Our case showed the presence of bone tissue formation, a finding not previously described in OPS and NH. We propose the name neuromatous odontogenic osseous hamartoma (NOOH) to describe this lesion.

INTRADUCTAL ADENOCARCINOMA ARISING IN A MINOR SALIVARY GLAND TUBULAR BASAL CELL ADENOMA

B Sedassari, A Altemani, University of São Paulo and the U of Campinas

OBJECTIVE: Basal cell adenoma (BCA) is a rare benign salivary gland neoplasm morphologically characterized by uniform basaloid cells differentiated into basal, myoepithelial and luminal types. Malignant transformation of BCA is exceedingly rare and biphasic carcinomas with basaloid morphology, such as basal cell adenocarcinoma, are the most common phenotypes described. We present a non-basaloid intraductal adenocarcinoma arising in a minor salivary gland tubular BCA. CLINICAL PRESENTATION: A 21-year-old man was referred for evaluation of an asymptomatic submucosal nodule in the upper lip. INTERVENTION AND OUTCOME: The lesion was completely excised. Its histopathology revealed a neoplasm delimited by a capsule. The major proportion of the tumor was characterized by juxtaposed irregular ducts lined by atypical cells with occasional apocrine-like snouts, positive to CK7, CK14, S-100 and vimentin.

Some of these cells showed a curious cytoplasmic p63. Androgen receptor and HER-2/neu were negative. No nuclear ²-catenin was found. These structures were confined by an external rim of basaloid myoepithelial type cells positive to CK14, ±-SMA, vimentin, S-100 and p63. Scattered foci composed by double-layered ducts lined by basaloid cells lacking atypia were interpreted as residual BCA areas. Myxochondroid areas and isolated nests of modified myoepithelial cells melting into the surrounding stroma were absent. Also, neoplastic cells were negative to PLAG1. These aspects allowed the diagnosis of intraductal carcinoma arising in a minor salivary gland tubular BCA. After 24 months of follow-up there was no evidence of recurrence or metastasis. CONCLUSION: BCA is a potential precursor lesion for the development of luminal type non-basaloid salivary gland carcinoma.

THE SPECTRUM OF CLINICAL AND HISTOPATHOLOGIC FEATURES OF AMELOBLASTOMA WITH GINGIVAL SURFACE INVOLVEMENT

J. Chang, J. Lee,Y. Wang, National Taiwan U, Taipei

Objective: Ameloblastoma (AM) is the most common benign odontogenic tumor of dental epithelial origin in the jaw. Based on the locations, AM is classified as intraosseous and extraosseous type. In some situations, intraosseous AM can destruct the cortical bone and infiltrate to the gingiva and even result in gingival surface involvement. In few cases, AM with gingival surface involvement might present as an exophytic or papillary lesion, which might cause misdiagnosis in a superficial biopsy. Therefore, this study is aim to characterize the clinical, histologic and radiographic features of a case series of AM with gingival surface involvement. Methods: Thirty AM with gingival involvement cases were retrieved from National Taiwan University Hospital Oral Pathology Service from 2006-2016. After reviewing the histopathologic features of the cases, seven cases showed the gingival surface involvement. The clinical, histologic and radiographic features of these seven cases were recorded. Results: The average age was 41.3 years (range 15-61 years) with majority of cases in males (5/7, 71.4%). Mandible was predominant location (5/7, 71.4%). An exophytic or papillary growth was reported in 3 out of 7 cases. All of the cases showed various sized radiolucent lesions. All of the cases revealed papillary or pebbly surface with prominent lymphocyte exocytosis and spongiosis in the involved gingiva. Reverse polarity and basal vacuolation were always missing in the upper portion and might present in the deep portion. Conclusion: AM with gingival surface involvement frequently reveals as a papillary or pebbly surface clinically and pathologically. Routinely check the radiographic findings and deeper biopsy including intraosseous component are recommended to avoid misdiagnosis.

RHINOSCLEROMA. A SERIES OF 16 CASES

N. Said-Al-Naief, Oregon Health Sciences University, Portland, OR, P. Edwards, Indiana University, Indianapolis, R. Carlos, Centro Clínico de Cabeza y Cuello and Hospital Herrera Llerandi, Guatemala City, Guatemala, C. Sanchez-Romero, O. Paes de Almeida, UNICAMP, Piracicaba, SP, Brazil

Rhinoscleroma (RS) is an uncommon, chronic infectious and proliferative disease, involving the nasal cavity, nasopharynx, oral cavity, trachea and larynx caused by Klebsiella Rhinoscleromatis. RS is endemic in Africa, Southeast Asia and Central and South America, where it has been associated with poor living conditions, nutritional deficiency and impaired cellular immunity. The pathogenesis of RS is not fully elucidated, primarily due to the lack of in vitro or in vivo models and generally Mikulicz cells, which are considered as the hallmark of Rhinoscleroma, may play an essential role in the development of the inflammatory process, observed in this infection. We describe 16 new cases of RS, age range 8-66 years, male: female 6:10. All patients complained of nasal obstruction. Oral ulceration and laryngeal stenosis were noted in 2 and 4 patients, respectively. The duration of symptoms, documented in 6 cases, ranged from 3 months to 26 years. Imaging studies confirmed the presence of large destructive midline nasal masses. Histology showed prominent plasma cell infiltrate, intermixed with foamy macrophages (Mikulicz cells) and scattered Mott cells . Argyrophilic bacterial forms, consistent with Klebsiella Rhinoscleromatis, were identified by histochemical stain in all patients. A contemporary review of Rhinoscleroma is presented.

ADENOMATOID ODONTOGENIC TUMOR: REPORT OF 19 NEW CASES FROM BRAZIL AND GUATEMALA

M. Romanach, T. Leite, M. Cabral, M. Agostini, E. Contreras, R. Carlos, Federal U. of Rio de Janeiro - Brazil, A Roza, Federal U. of Rio de Janeiro - Brazil Centro Clínico de Cabeza y Cuello/Hospital Herrera Llerandi - Guatemala

Adenomatoid odontogenic tumor (AOT) is an uncommon benign tumor of limited growth potential composed by odontogenic epithelium with duct-like structures. It classically appears in a pericoronal relationship with an unerupted maxillary canine with a higher frequency in the second decade of life. Objective: To report 19 new cases of AOT from Brazil and Guatemala. Methods: Nineteen AOT cases were retrieved from the archives of the Oral Pathology Laboratories of Federal U. of Rio de Janeiro Brazil and the Centro Clínico de Cabeza y Cuello Guatemala in a period between 1979 and 2016. Results: Fourteen patients were female and five

were male, with average age of 19 years (varying from 8 to 77 years). Tumors predominantly affected the anterior region of maxilla (9 cases), followed by premolar region of the mandible (5 cases), anterior-premolar region of the mandible (3 cases), and anterior-premolar region of the maxilla (2 cases). Image exams were available in twelve cases; seven of them were classical follicular AOT around the crowns of canines, four were extra-follicular, and one was peripheral with slight erosion of the bone crest. All cases were well-defined unilocular radiolucencies that produced tooth displacement, most of them containing radiopaque foci and measuring more than 2 cm with cortical expansion and tooth displacement. Microscopically, all cases exhibited rosette-like structures in a hemorrhagic fibrous connective tissue; solid nodules or interlacing peripheral strands of cuboidal or columnar epithelial cells forming duct-like spaces and calcifications were also commonly observed. Conclusion: AOT from Brazil and Guatemala tend to show similar features when compared to other centers.

BONE NECROSIS OF THE MAXILLA ASSOCIATED WITH BISPHOSPHONATES AND PAGET DISEASE. A CASE REPORT

N. Nikitakis, A. Clark, A. Daskalopoulos, Dept of Oral Pathology and Medicine, School of Dentistry, National and Kapodistrian U. of Athens, Greece and the Dept of Diagnostic and Biomedical Sciences, School of Dentistry, U. of Texas, Health Science Center at Houston, USA

Objective: Medication-related osteonecrosis of the jaw (MRONJ) is a significant adverse drug reaction, affecting patients treated with antiresorptive medications. Other conditions characterized by abnormal osteoblastic and osteoclastic activity and/or avascular bone, such as Paget disease (PD), may also result in a clinicopathologic presentation mimicking or complicating MRONJ. Clinical Presentation: A 66 years old black female presented with intermittent painful symptoms in the left maxilla of approximately 2 years duration, resulting in inability to wear dentures (which first became ill-fitting 8 years ago). Her medical history included hypertension, cardiovascular disease, breast cancer, chronic kidney disease, anemia, osteoporosis, PD and a 30 pack year history of smoking. Intraoral examination revealed a 2.5x1.0 cm area of exposed bone in the left maxilla. On further questioning, previous use of zoledronic acid for an unspecified time period was reported. On panoramic radiograph, both maxilla and mandible demonstrated diffuse alterations compatible with PD. Intervention and Outcome: Histopathologic examination of a maxillary bone biopsy specimen revealed dense, sclerotic fused masses of viable and non-viable bone with empty lacunae, peripheral resorption and prominent reversal lines. Basophilic bacterial colonies and acutely and subacutely inflamed connective tissue were noted. The final

diagnosis was MRONJ with associated osseous lesion most suggestive of PD (sclerotic phase). Conclusion: PD results in an avascular sclerotic bone susceptible to bone necrosis. On the other hand, bisphosphonates, used in PD management, are major culprits in MRONJ. The association of PD with jaw osteonecrosis may be multifaceted and deserves further investigation.

CENTRAL ODONTOGENIC FIBROMA: REPORT OF THREE NEW CASES FROM BRAZIL

T. Leite, E. Mendes, A. Abrahao, B. Andrade, N. Canedo, M. Agostini, M Romanach, Federal U. of Rio de Janeiro - Brazil

Central odontogenic fibroma (COF) is an uncommon benign fibroblastic tumor with variable amounts of inactive-looking odontogenic epithelium. Objective: To report three new cases of COF from Brazil. Methods: Three COF cases were retrieved from the archives of the Oral Pathology Laboratory of the Federal U. of Rio de Janeiro Brazil in the last 5 years. Results: COF occurred in female patients with an average age of 48 years (varying from 40 to 63). Tumors clinically appeared as asymptomatic swellings in the mandible (2 cases, one in the premolar region and the other posterior to the first molar) and in the maxilla, posterior to the first molar. Image exams revealed well-defined and expansive multilocular radiolucencies with displacement of contiguous teeth. Gross features included irregular and whitish, fibrous in consistency fragments, intimately related to tooth roots. Microscopically, one case showed classical features of epithelium-rich COF whereas the other two cases were classified as granular cell variant of COF and COF associated with central giant cell granuloma. Epithelial islands were highlighted by AE1/AE3 staining. All patients were submitted to conservative surgical treatments, with no signs of recurrence after an average of 10 months of follow-up. Conclusions: Oral pathologists should consider COF when evaluating apparently locally aggressive multilocular lesions, located in tooth-bearing areas of middle-aged female patients. Inactive-appearing odontogenic epithelium may be closely related to a fibrous component, occasionally with multinucleated giant cells or granular cells. Recurrences are not expected after thorough enucleation and selective teeth extractions.

EPIDEMIC PAROTITIS IN ARKANSAS

S. Whitaker, E Zantow, J. Wheeler, D Haselow, U Arkansas for Medical Sciences, U Oklahoma Medical Center and the Arkansas Department of Health Arkansas Department of Health

EPIDEMIC PAROTITIS IN ARKANSAS S Whitaker, University of Arkansas for Medical Sciences, Little Rock, E Zantow, University of Oklahoma Medical Center, Oklahoma City, J Wheeler and D Haselow, Arkansas Department of Health, Little Rock. Epidemic parotitis or mumps is caused by a paramyxovirus well known for affecting the salivary glands and gonads.The signature feature of this disease is bilateral parotid enlargement. While subclinical infections occur, the classic presentation has become so rare that many experienced clinicians have never seen a case. The development of the MMR vaccine in 1971 along with a booster recommendation in the 1990s had essentially eliminated mumps in the U.S. More recently however, along with other communicable diseases, epidemic parotitis appears to be making a comeback; perhaps most publicized in the 2014 National Hockey League affair. Recent outbreaks in the nations heartland have affected schools in significant numbers, and Arkansas in particular has been hardest hit with 2802 reported cases as of February, 2017. Although all racial and socioeconomic groups have been impacted, Marshallese migrants living in Northwest Arkansas have been disproportionally affected, constituting 57% of all cases. While undervaccination initially was presumed to be the major reason behind the outbreak, it appears that the surge in cases is more driven by poverty and intense exposures afforded by crowded housing. We present a brief history of epidemic parotitis in Northwest Arkansas with emphasis on the unique Marshallese population.

SCHWANNOMA OF THE SUBMANDIBULAR GLAND: A CASE REPORT. B. Aldape, C. Escalera, L. Perez J. Perez, M. Cruz Y. Vazquez, A. Valdez, National Autonoma De Mexico, HJM Mexico and Incan Mexico Schwannomas are benign neoplasms that arise from nerve sheath cells. Schwannomas are not uncommon in the head and neck area, but are rarely seen in the salivary glands. We report a case of a 35-year-old female with a slow-growing painless mass on the left submandibular salivary gland. The lesion had been present for 6 months. Computed tomographic scan showed an ovoid hypodense lesion within the left submandibular salivary gland measuring 3.1 X 2.6 X 2.6 cm. A presumptive diagnosis of pleomorphic adenoma was made. Surgical excision of the mass was performed and samples were sent for H&E studies. Microscopic examination revealed an encapsulated tumor composed of a proliferation of benign spindle cells with abundant myxoid areas (Antoni B pattern) and Verocay body formation (Antoni A). Histologic staining of the tumors cells was positive for S-100 protein. A diagnosis of Schwannoma was rendered. There has not been a recurrence within 6 months of follow-up.

EXUBERANT BROWN TUMORS OF PRIMARY HYPERPARATHYROIDISM AFFECTING MANDIBLE AND MAXILLA

M. Agostini, A. Abrahao, E. Cortezzi, B. Andrade, T. Leite, M. Romanach, Federal U. of Rio de Janeiro - Brazil

Objective. To report an uncommon case of exuberant brown tumors affecting mandible and maxilla of a young patient as the first manifestation of primary hyperparathyroidism. Clinical presentation. A 34-year-old female patient was referred with significant facial asymmetry caused by a painful bleeding swelling in the maxilla with progressive growth in the last 2 months. Patient reported history of arterial hypertension, with recent weight loss and fever episodes. Intraoral examination revealed an 8 × 4 cm reddish swelling in the left posterior maxilla, and a 4 x 2 cm swelling in the right body of the mandible. Both lesions were hard in consistency, covered by a smooth erythematous surface. Panoramic radiography revealed multiple multilocular radiolucent lesions in the posterior maxilla and mandible, which produced thinning of basal cortical of the mandible, loss of lamina dura, and loss of continuity of the mandibular canal. Incisional biopsy revealed brown tumors as first manifestation of primary hyperparathyroidism, which was discovered after evidence of high serologic levels of alkaline phosphate and parathormone, as well as microscopic confirmation of parathyroid adenoma after parathyroidectomy. Intervention and outcome. Patient was managed with calcium supplementation in addition to calcitriol. Partial regression of the lesions and normal serum calcium levels were observed 8 months after parathyroidectomy. Conclusion. The diagnosis of brown tumor of hyperparathyroidism is established by correlation of clinical, imaging, and biochemical findings. Multiple brown tumors in the jaws rarely represent the first sign of primary hyperparathyroidism, which should be clinically considered during evaluation of simultaneous exuberant swellings in young patients.

COCAINE OSTEONECROSIS – EXPOSED, MRONJ-LIKE BONE FROM ORAL PLACEMENT OF COCAINE & CRACK POWDER

H. Qari, C. Johnson, J. Bouquot, L. Lins, Department of Diagnostic Sciences, West Virginia University, Morgantown, WV, Department of General & Public Health Dentistry, University of Texas, Houston, Department of Diagnostic & Biomedical Sciences, University of Texas, Houston and the Department of Diagnostic Sciences, Federal University of Bahia, Salvador, Brazil

Background: Nasal septal & hard palate perforation can occur from snorting cocaine. It has been revealed that some users repeatedly place moistened cocaine or crack powder under the upper lip or in the posterior mandibular vestibule,

adjacent to alveolar mucosa. Objective: We present, for the first time, cases of MRONJ-like exposed alveolar bone at sites of repetitive cocaine/crack placement. Clinical Presentation: Five patients (4 males;1 female), aged 17-32 years, presented to dental school clinics with areas of chronically exposed alveolar bone showing only mild inflammatory changes of surrounding soft tissues. Lesions varied from 8-14 mm in greatest diameter and all lesions were located on the facial alveolus at sites which patients eventually admitted to being areas of repeated placement of cocaine (n = 3) or crack powder (n = 2). The most common site of involvement was the maxillary lateral incisor area, under the upper lip (n = 3), with 2 other lesions in the mandibular molar region, from placement of the product in the vestibule. Patients claimed that exposed bone had been present for 1-5 months prior to diagnosis; 2 lesions developed spontaneously while 3 occurred after local trauma. Lesions were tender to palpation but only 2 demonstrated spontaneous pain (1 = mild; 1 = moderate). The single case with bone biopsy displayed desiccated, nonviable bone with subacute inflammation. Outcome: Two lesions were followed, without treatment, for 7 and 12 months, each slowly becoming covered by mucosa; subjects discontinued product placement at the sites. Conclusion: Cocaine and crack powder placed repeatedly against alveolar mucosa may result in MRONJ-like chronic bone exposure and poor healing after trauma. We propose the term cocaine osteonecrosis for such lesions.

MYCOTIC INFECTION ASSOCIATED WITH SINGLE TOOTH IMPLANTS IN THE MAXILLA : CASE SERIES

N Handoo, S Timmons, S Sousa Melo, S Steward-Tharp, J Hellstein, U. of Iowa, Iowa City

Objective: Dental implants have become increasingly common. The maxillary arch has anatomical structures that can pose a challenge when sinus augmentation and/or sinus bone graft are required. Although rare, fungal infection is a potential complication in an immunocompetent patient. Case Presentation: We present 2 cases with mycotic infections associated with single tooth implants in the maxillary arch. Case 1: 63 y/o female with a long history of burning pain of the left maxilla. CBCT shows a mixed radiopaque, radiolucent mass in the anterior portion of the left maxillary sinus. An implant replacing the maxillary left first molar was partially located within the sinus. Also identified was a dense radiopaque mass superior to the implant consistent with displaced bone graft material. Bilateral sinusitis was noted. Case 2: 79 y/o male with an oroantral communication. Pantomograph showed opacification of the right maxillary sinus and implants replacing the 1st molar and 2nd premolar. The implants encroached on the sinus. H

& E slides revealed fragments of soft tissue with necrosis and associated inflammatory response. Basophilic material consistent with fungal and bacterial colonies were noted. GMS and PAS modified for fungi showed septate hyphae branching at acute angles and spores consistent with Aspergillus. To our knowledge, these are the 2nd and 3rd reported cases of mycotic infection in the maxillary sinus subsequent to single tooth implants. Intervention and Outcome: These entities were considered to be noninvasive fungal infections and simple surgical removal was advised. Conclusion: Dental implants are a common clinical procedure. These cases illustrate potential complications which can be managed conservatively.

ISCHEMIC AND INFLAMMATORY PATHOSIS IN SINUS LIFTS AT 30 DAYS A HISTOPATHOLOGIC EVALUATION OF BILATERAL CASES WITH AND WITHOUT PHOTOBIOMODULATION

F Samim J Bouquot, N Ickert, Eastern Health, Memorial University & Atlantic Oral Surgery and Implant Centre, New Brunswick, Canada, University of Texas, Houston and the Dental Implant Centre, Langley, British Columbia, Canada

Background: Immediate placement of implants into sinus lift augmentation materials has been shown to be less successful than delayed placement (after 6 months). Poor healing and remodeling because of ischemic or inflammatory processes may be responsible. Low level light therapy (LLLT) has been shown to lessen or alleviate these processes in both soft tissue and bone. Objective: to histologically compare sinus lift tissues with and without LLLT at 30 days post-op. Method: 3 subjects, aged 49, 53 & 57 years (2 females; 1 male), underwent routine bilateral lateral access sinus lift procedures using particulate cadaver graft material. One side received no further treatment while the other received, for 30 days, 20 minutes of LLLT daily, using an LED array producing non-coherent continuous wave monochromatic light 660 nm @ 15 mW/cm2 & 840 nm @ 20 mW/cm2. At 30 days post-op, a core sample was taken from each of the 6 sites and evaluated using light microscopy. Results: Non-LLLT sites showed considerable ischemic stromal disease with focal chronic inflammation, with abundant residual augmentation bone and minimal new bone or mature bone. One site showed a large site of foreign body reaction (cause unknown). All LLLT sites showed considerable viable new bone formation, typically remodeled into mature bone, although the background stroma remained dense fibrous tissue instead of fatty marrow; only occasional residual augmentation bone was seen. Very few chronic inflammatory cells were seen in the stroma and there was almost no ischemic damage. Conclusion: Based on these few cases, use of LLLT daily for 30 days after sinus lift procedures greatly enhances new bone formation, elimination of

augmentation bone, maturation of bone, and minimized inflammatory and ischemic disease.

A CASE OF AA TYPE AMYLOIDOSIS PRESENTING AS NODULAR ORAL LESIONS.

A. Kiyani, A.Z. Kiani,U. Luqman, Riphah International U, Islamabad, Pakistan, and KRL General Hospital, Islamabad, Pakistan

Amyloidosis is a group of conditions that leads to deposition of a proteinaceous substance called amyloid in the body. These deposits can be organ limited or systemic. The type of protein and where it collects, determines the type of amyloidosis. Sites of involvement include the skin, kidneys, heart, spleen, nervous system, digestive tract and rarely, the oral cavity. A 63-year-old Pakistani female patient was seen at the KRL General Hospital for painful sores in the oral cavity present for several months. The patient had a recent complaint of difficulty in swallowing. The patients medical history was positive for rheumatoid arthritis, ankylosing spondylitis, heart disease and osteoporosis, all under control with medication. Extraoral examination showed nodules on the upper eyelids. Intraoral examination revealed several nodular growths on lateral tongue and bilateral buccal mucosae. An incisional biopsy was performed on a nodule from left buccal mucosa. Sections showed amorphous eosinophilic deposits in the subepithelial and perivascular areas. Apple-green birefringence was noted on viewing the sections stained with Congo-red under polarized light. A diagnosis of oral amyloidosis was made. The patient was advised to undergo serum immune electrophoresis to rule out monoclonal gammopathy, and then referred to a medical specialist for a systemic evaluation. Tests identified amyloid deposits in multiple areas of the digestive tract, the larynx, and skin. The final diagnosis was systemic amyloidosis, secondary to chronic inflammatory diseases (AA type). Oral deposits of amyloid may be the first identifiable signs of systemic involvement. Authors: Amber Kiyani, Anam Zahid Kiani, Uzair Luqman.