AAOMP

American Academy of Oral
& Maxillofacial Pathology

Essay Program

Sunday - May 1, 2011
8:00 am – 12:30 pm

San Cristobal Ballroom A

Essay Abstracts – Sunday, May 1, 2011

#1 – 8:00 am

AQP5 IN THE SALIVA OF PATIENTS AFFECTED BY SJÖGREN SYNDROME. C Bacci, G Pipinato, M Della Barbera, M Berengo, ML Valente. U of Padova, Italy. AIM OF THE STUDY: To dose the quantity of aquaporin 5 (AQP5) in the saliva of patients affected by Sjögren's Syndrome (SS) MATERIALS AND METHODS: Twenty-five female patients, mean age 44±13, are divided into 3 groups: A) primary SS (9 patients), B) secondary SS (7) C) control group (9). The saliva is collected from the floor of the mouth of each patient by disposable syringes, immediately diluted in PBS +0.05% of Triton-X and kept at -80°C. AQP5 is identified and quantified by antibody sandwich (Capture) ELISA. The capture antibody used is a polyclonal rabbit anti-rat AQP5. Different AQP5 concentration in the saliva samples are studied with t-Student test. Moreover, immunohistochemical investigation has performed in order to verify the AQP5 localization in cells of human salivary minor glands. RESULTS: AQP5 in salivary minor glands was apical in C and basolateral in A and B. AQP5 concentration is statistically increased in A (183,77±49,29 pg/µl) compared with C (49±18,66 pg/µl), in B (189 ± 52,22 pg/µl) compared with C and in A+B (186,06±48,90 pg/µl) compared with C. AQP5 concentration is not statistically increased between A and B. DISCUSSION: Although some authors debate the use of a polyclonal anti-rat AQP5 antibody, our histological localization of AQP5 in human salivary minor glands agrees with the studies using a monoclonal anti-human AQP5 antibody. Increasing of AQP5 concentration in the saliva of A, B and A+B is probably due to the glandular tissue damage, caused by the typical lymphocytic infiltration in SS. CONCLUSION: This is the first study evaluating AQP5 concentration in human saliva A specific method of survey was created for AQP5 quantification and results are encouraging. This could be the first non-invasive quantitative method proposed for the SS diagnosis.

#2 – 8:12 am

EVALUATION OF CELL PROLIFERATION AND ANGIOGENESIS IN TONGUE SQUAMOUS CELL CARCINOMA AND THEIR RELATION TO HISTOLOGIC GRADE. M Khalili, F Baghaee, R Beheshti. Tehran U Medical Sciences, Iran. Objective: Squamous cell carcinoma (SCC) is the most common type of oral cancer which has been identified as a significant public health threat. It has been suggested that angiogenesis and cell proliferation are important factors in tumor progression and metastasis and it is possible that angiogenesis may influence or be influenced by cell proliferation. Also, the clinical significance of histological grading is still controversial. The aim of this study was to evaluate cell proliferation and angiogenesis in tongue SCC and their relation to histologic grade. Materials and Methods: A total of 24 cases of tongue SCC were selected after applying the inclusion and exclusion criteria. Sections were obtained from formalin-fixed and paraffin-embedded blocks and immunohistochemical staining was performed using antibodies against CD105 (endoglin) and Ki-67. Angiogenesis was assessed by CD105 microvessel density (MVD). Positively stained microvessels were counted for each specimen in predominantly vascular area (hot spot) at x400 magnification. The proliferation index was expressed by Ki-67 labeling index (LI). Tumor histological grade was defined as low, intermediate and high. Data were analyzed using t-test and Pearson correlation coefficient. Findings: Both CD105 MVD and Ki67 LI were significantly related to histological grade (p= 0.045 and p= 0.047, respectively). Low grade tumors had higher MVD and lower proliferation index compared to intermediate and high grade tumors. No significant correlation was observed between CD 105 MVD and Ki67 LI (P= 0.86). Conclusion: Our findings suggested that angiogenesis and cell proliferation are separate and independent factors which are both related to tumor differentiation in tongue SCC.

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#3 – 8:24 am

HIGH P63, CD147 AND KI-67 EXPRESSIONS CORRELATE INVERSELY WITH SURVIVAL IN ORAL TONGUE SQUAMOUS CELL CARCINOMA (OTCSS): A TISSUE MICROARRAY STUDY. J Morales, M Macaden, L Feng, A El-Nagger, J Lee, N Vigneswaran. U Puerto Rico School of Dental Medicine; U Texas School of Dentistry and U Texas MD Anderson Cancer Center, Houston. OTSCC despite being diagnosed early has poor survival rate. Hence, biomarker that predicts prognosis in OTSCC is critical for therapeutic decision making. CD147 and CD44v6 promote maintenance of cancer stem cells, tumor invasion and metastatic progression. GLUT-1 expression in tumors is associated with rapid growth and hypoxia. The p63 is implicated in tumor cells survival. K. Aim: To determine the prognostic significances of these biomarkers in OTSCC. We used a tissue microarray consisting OTSCC from 32 patients for this study. These patients were treated at the MDACC from 1995 to 2008. Biomarker expression levels were examined by immunohistochemistry and graded semi-quantitatively. Regression models using generalized estimating equations were used evaluate the association between histology grade and marker expressions. Overall, nodal recurrence ar distant metastasis-free survivals are assessed using the Kaplan-Meier method. Expression levels of p6 and Ki-67 correlated positively
($p < 0.05$) with tumor stage and poor histologic grade. Tumor stage correlated significantly with CD 147 ($p<0.05$) and marginally with GLUT-1 ($p=0.06$) expression levels. Increased p63 expression strongly correlates with elevated levels of CD147 and GLUT-1 ($p < 0.05$). Nodal metastases and extracapsular spread statuses were the best predictors of overall survival ($p < 0.01$). The effect of p63 on overall, nodal recurrence free survival and distant metastasis free survival was significant ($p<0.05$) Increased risk for nodal recurrence, distant metastasis and death was associated strongly with p63 and ki67 ($p<0.05$) and marginally with CD147 expression ($p< 0.10$). Ki-67, p63 and CD147 expressions ir

#4 – 8:36 am

P38 MEDIATES CYTOKINE SECRETION VIA INACTIVATION OF TRISTETRAPROLIN IN SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK. R Vander Broek, E Van Tuberger K Kirkwood, N D'Silva. U Michigan School Dentistry, Ann Arbor and Medical U South Carolina, Charleston. Pro-inflammatory cytokines enhance tumor progression in squamous cell carcinoma of the head and neck (SCCHN). RNA binding proteins, such as tristetraprolin (TTP), bind to and induce decay of cytokine mRNA transcripts, thereby reducing cytokine secretion. Previously, we showed that TTP downregulation in SCCHN leads to increased IL-6 secretion which is correlated with poor diseas specific survival. However, the role of the p38/MAPK pathway in TTP-regulated cytokine secretion has not been investigated in any cancer. Objective: The goal of this project was to investigate the role of p38 in TTP-mediated cytokine secretion in SCCHN. Methods: Phospho-p38, total p38 and TTP expression were detected by immuno-blot analysis. Experiments were performed in three different cel lines. Cell lysates were generated from control or IL-1² activated cells. Knockdown and inhibition of p38 were performed by siRNA and SB203580, a p38 inhibitor, respectively. To generate cell lines with stable downregulation of TTP, SCCHN cells were transduced with short-hairpin RNA targeting TTP or control shRNA. Cytokines were quantified by ELISA. Results: pp38 activity is increased in SCCHN compared to normal keratin-ocytes. IL-1² induces p38 activation, which was abrogated by p38 inhibitor in a dose dependent man-ner. Knockdown of p38 decreased IL-6, VEGF and PGE2 secretion, even in the presence of IL-1² shRNA targeting TTP decreased TTP expression and increase cytokine secretion in SCCHN. Conclusions: These findings suggest that targeting upstream regulators of cytokine secretion, such as p38 and TTP, may improve responsiveness of SCCHN to treatment via inhibition of cytokines.

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#5 – 8:48 am

CALCIFYING EPITHELIAL ODONTOGENIC TUMORS: AN IMMUNOHISTOCHEMICAL AND CLINICOPATHOLOGIC ANALYSIS. EL Bilodeau, E Beniash, R Tourek, E Barnes, R Seethala. U of Pittsburgh School Dental Medicine/McGowan Institute for Regenerative Medicine and U Pittsburgh Medical Center, PA. Calcifying epithelial odontogenic tumors (CEOT) are uncommon locally aggressive odontogenic tumors characterized by a peculiar amyloid matrix. The nature of this matrix has been debated, and while generally regarded as odontogenic tumors, few authors have reported myoepithelial differentiation in CEOT. We performed a clinicopathologic and immunohistochemical survey of 19 cases of CEOT in 12 patients to address these issues. Of the cases with known demographics, a 1:1 female to male ratio was seen with a mean age of 48.6 (range 21-78). 8 cases involved the maxillary sinus and 2 involved the gingiva. 1 case was associated with a complex odontoma and another case had features of an adenomatoid odontogenic tumor. 2 cases exhibited aggressive features such as angiolymphatic invasion. One of these cases showed malignant transformation, recurring at two years with tumor extending from the condyle and zygomatic arch to base of the skull. In all cases tumor cells were positive for P63 (100%), but negative for smooth muscle actin (0%) and calponin (0%) as well as calretinin (0%), and lymphoid enhanced factor-1 (0%). Using fluorescent immunohistochemical techniques we have demonstrated that the tumoral cells of CEOT contain and secrete the enamel protein amelogenin and amelogenin is a component of the amyloid stroma (100%). In conclusion, our findings indicate that amelogenin is a component of the amyloid stroma secreted by tumoral cells. Furthermore, CEOT are low-grade tumors capable of malignant transformation. Immunophenotypic evidence is suggestive of an odontogenic phenotype and shows no evidence for myoepithelial differentiation.

#6 – 9:00 am

VARIABILITY OF EPITHELIAL AND KERATIN MARKERS IN SARCOMATOID CARCINOMAS OF THE ORAL CAVITY. A Neuman, D Cohen, I Bhattacharyya. U Florida, Gainesville. Introduction: Sarcomatoid carcinoma (SC) is a biphasic tumor with a conventional epithelial squamous component and a sarcomatoid spindle cell component. Conclusive determination of epithelial differentiation may be difficult under light microscopy. The degree and intensity of reactivity to epithelial and keratin markers is variable and creates a significant diagnostic challenge when reporting on limited biopsy material and considering cost of immunohistochemistry. Aim: To determine the most effective epithelial markers when SC is suspected. Methods & Materials: 11 archival cases of SC were obtained and screened with pankeratin AE1/3. If AE1/3 was negative or no evidence of surface epithelial involvement was found, immunohistochemical staining with other epithelial markers was done including 34BE12, EMA, p63, MAK-6, CAM5.2, and pancytokeratin. Results: 7 cases displayed evidence of dysplasia or carcinoma involving the surface epithelium. The remaining 4 showed positivity to at least 1 marker for keratin. 2 cases were negative for all markers except MAK-6 in spite of evidence of surface epithelial neoplasia. Our findings demonstrate that MAK-6 was the most reliable marker with positive reactivity in 86% and positive in 3 of the cases with negative AE1/3. CAM5.2 was positive in 4/8 cases including 2 where AE1/3 was negative. EMA 34BE12, and pancytokeratin were the least useful and negative when employed. Conclusions: Our results substantiate that SCs demonstrate highly variable reactivity to keratin and epithelial markers. MAK-6 and CAM 5.2 were the most reliable markers when either AE1/3 was negative or no histological evidence of epithelial neoplasia was noted.

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#7 – 9:12 am

THE BUCCAL BIFURCATION CYST: A CASE SERIES AND REVIEW OF THE LITERATURE. L Bowers, D Cohen, I Bhattacharyya. U Florida, Gainesville. The buccal bifurcation cyst (BBC) is an uncommon, inflammatory odontogenic cyst arising at the bifurcation of mandibular molars in children. While there has been much debate as to the pathogenesis of the BBC, it appears that the BBC and the paradental cyst, affecting mandibular third molars, share common pathogenic mechanisms and histopathologic features, lending credence to the proposal that the BBC and paradental cysts are variants of the same lesion. We review a series of 5 cases of BBC collected over one year by the authors from the archives of the Oral and Maxillofacial Pathology Laboratory at the University of Florida and examine the clinical, radiographic and histologic findings along with theories regarding etiology and appropriate treatment.

#8 – 9:24 am

BIZZARE PERIOSTEAL OSTEOCHONDROMATOUS PROLIFERATION (BPOP) OF THE MANDIBILE. H Dashti, J Reith, B Schlott, E Lewis, D Cohen, I Bhatacharyya. U Florida, Gainesville. BPOP also called Nora's lesion, is a rare benign reactive bone lesion first reported 1983 as occurring on the bones of the hands. BPOP has since been reported in the hands, feet, and long bones and is reported to have a high rate of recurrence. This lesion can easily be confused both clinically and microscopically with other benign and malignant lesions of bone including osteochondroma, parosteal osteosarcoma, myositis ossificans and reactive periostitis. We present a rare case of BPOP of the mandible in a 10 year old African American male with a well defined knob-like 2 x 1 cm extension arising from the right premolar region of the mandible. Microscopically a fibro-cartilaginous cap giving rise to a proliferation of variably mineralized osteophytic finger-like projections of bone was seen. Multiple trabeculae of 'blue bone' were noted as well as numerous atypical appearing chondrocytes. The lesion recurred within four months following the initial excision but has not recurred to date after the second local excision. To the best of our knowledge, this is the first report of BPOP arising in the mandible. There has been one case reported in the maxilla and two others in the head and neck region. Clinical, microscopic and prognostic considerations of this rare entity will be discussed.

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#9 – 9:36 am

ROSAI-DORFMAN DISEASE: A CASE REPORT AND REVIEW OF THE LITERATURE. J Pradhan, D Koslovsky, E Philipone. New York Presbyterian Hospital, Columbia U, New York. Rosai-Dorfman disease (RDD) is a rare benign non-Langerhans cell histiocytic disorder of unknown etiology, classically associated with significant lymphadenopathy. Rare examples of RDD without clinical or radiographic evidence of concomitant lymph node involvement have been reported; however, only five cases thus far have been reported of extranodal RDD localized to the oral cavity. We report only the sixth such case. Our patient is a 20-year-old female with no significant past medical history who initially presented with mobile but vital teeth #7 & #8 with overlying discomfort. A radiolucent lesion was noted on x-ray and initial biopsy of the lesion was reported as granulation tissue. Given her ongoing discomfort, she then underwent root canal therapy and three curettage procedures on both teeth without improvement in her symptoms, but rather with enlargement in size of the lesion. She then presented to our institution, where we reviewed the biopsy slides, which showed sheets of larger histiocytes with areas of emperipolesis, which is highly characteristic for RDD. Immunohistochemical staining revealed these large histiocytes to be S-100 positive and CD1a negative, helping to confirm a diagnosis of RDD.

#10 – 9:48 am

LYMPHANGIOMA-LIKE KAPOSI'S SARCOMA IN THE ORAL CAVITY. P Pugalagiri, YSL Cheng, D Watkins, D Carlton, J Wright. Texas A&M U Health Science Center-Baylor College of Dentistry and Baylor U Medical Center, Dallas, and Dallas, TX. Kaposi's sarcoma is a malignancy of vascular origin. It usually presents with an increased vascular proliferation and a spindle cell component, which demonstrates slit-like vascular spaces. We present a case of lymphangioma-like Kaposi's sarcoma, a rare variant of Kaposi's sarcoma, in the oral cavity. A 45-year-old male presented with a large diffuse red lesion in the left posterior maxillary palate and tuberosity. The clinician's differential diagnoses included lymphoma or other neoplasms. Histologically, the lesion showed extensive chronic inflammation and numerous dilated vascular spaces with papillary projections, resembling lymphangioma, in the lamina propria. These vascular spaces and the papillary projections were lined by flat or plump endothelial cells with bland morphology. Mitoses are rarely seen. In the deep lamina propria, there were plump spindle cells in the chronically inflamed fibrous connective tissue. Prominent extravasation of blood was not seen. The endothelial cells as well as the plump spindle cells showed positive immunohistochemical staining for CD31, CD34 and HHV-8. The clinical presentation, histological features and the immunohistochemical findings supported the diagnosis of lymphangioma-like Kaposi's sarcoma. The patient did not have a history of AIDS and the HIV status was unknown at the time of biopsy. Therefore, he was referred to an oncologist for evaluating his HIV status and further treatment for the neoplasm. However, he soon moved and was lost for follow up.

Essay Abstracts – Sunday, May 1, 2011

#11 – 10:00 am

DEVELOPMENT OF BISPHOSPHONATE-RELATED OSTEONECROSIS OF THE JAWS IN PATIENTS TREATED WITH ANNUAL ZOLEDRONIC ACID INFUSION (RECLAST®) WITH HISTORY OF ORAL BISPHOSPHONATE USE: A SERIES OF 3 CASES. S Fitzpatrick, M Stavropoulos, L Bowers, A Neuman, D Hinkson, J Green, I Bhattacharyya, D. Cohen. U Florida, Gainesville and Logan, UT. Although much data has been published regarding the incidence and characteristics of bisphosphonate-related osteonecrosis of the jaws (BRONJ) in the setting of IV and oral bisphosphonate use, little information is available on the prevalence of BRONJ in patients taking a single yearly IV zoledronic acid (Reclast®) infusion. The purpose of this article is to document three cases of BRONJ arising in patients treated with yearly zoledronic acid with a previous history of oral bisphosphonate use for osteoporosis or osteopenia. To the best of our knowledge this is the first series of cases to be reported of BRONJ arising in patients in this population. The first and third cases presented with stage 1 BRONJ and the second case with stage 3 disease. All patients were treated with non-surgical measures. One case resolved in 4 months with no treatment but the other two patients did not heal completely, with one becoming stable after 10 months and the third remaining unhealed at 18 months. This case series illustrates the potential risks associated with a single dose of a potent bisphosphonate given to patients with a history of long term oral bisphosphonate therapy. The patients involved appear to have had a mild clinical course similar to oral bisphosphonate-related BRONJ. However the onset of symptoms appeared much more rapidly than typically seen in oral bisphosphonate-related osteonecrosis. In addition, all of the patients had additional risk factors for BRONJ. Clinicians should be aware of the risk of development of BRONJ following the use of Reclast® in order to optimize prevention and treatment.

#12 – 10:12 am

RESULTS FROM A THREE YEAR STUDY OF ORAL BISPHOSPHONATE RELATED OSTEONECROSIS OF THE JAWS: IMPLICATION FOR MORE ACCURATE DIAGNOSIS, ETIOLOGY/ PATHOGENESIS, TREATMENT AND PROGNOSIS. D Cohen, KR Magliocca, RM Cohen, J Green, E Lewis E, J Ojha, MN Islam, H Chehal. U Florida, Gainesville; Washington U, St. Louis; U Detroit Mercy, MI; Indiana U, Indianapolis. Since UF is a major referral center for bisphosphonate related osteonecrosis (BRON) of the jaws and with funding from Merck and Co. we have established the largest well documented database to date with 35 of patients with oral BRON. It appears BRON has a clear two fold pathogenesis including injury to the mucosa and profound and prolonged inhibition of bone remodeling and healing. The injured tissue becomes contaminated by pathogens, chiefly Actinomyces species which leads to a challenge in healing that the compromised bone and ineffective inflammatory response cannot meet. To be included in the study patients had to have sufficient data available to complete our stringent prescribed data set based on American Society of Bone and Mineral Research (ASBMR) task force recommendations for BRON case studies. We followed these patients for three years. Oral BRON lesions are usually much less extensive than those seen in patients on the intravenous preparations and most patients 32/35 (94%) present in stage 1 or 2. Twenty-nine out of 35 (83%) were on the drug for more than three years (range 18 to 180 months) before they developed the lesion(s). Oral BRON cases appear much more responsive to conservative treatment, with only 6% of patients requiring a resection and 88% completely cured after two years of follow-up. Characteristic radiographic features were consistently present in BRON patients and included sclerosis of only the alveolar process, periosteal thickening, sclerosis of the dental lamina, widening of the PDL, incipient bifurcation involvement and bony sequestration/expansion. These are especially helpful in identifying most if not all cases of BRON.

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#13 – 10:24 am

ORAL HEALTH CARE PRACTITIONERS' PERCEPTIONS OF BISPHOSPHONATE-RELATED OSTEOCHEMONECROSIS OF THE JAWS. K Magliocca, A Cantrell, D Cohen, I Bhattacharyya, B Schlott, J Green, T Dolan. U Florida, Gainesville. Bisphosphonate-related osteochemonecrosis of the jaw (BRONJ) is an uncommon clinical condition in which patients present with exposed, necrotic bone in the jaws, which may be painful or infected. Most commonly the condition follows removal of a tooth, but it can also develop spontaneously. Research is being conducted to elucidate the pathogenesis, risk factors and treatment strategies but evidence based recommendations are lacking. The ambiguity of the disease pathogenesis, associated risk factors and possible impact on routine dental procedures is hypothesized to generate a high level of uncertainty for oral health care practitioners. This survey was conducted to determine the methods by which general dentists and dental specialists in the state of Florida first came to know about BRONJ, stay abreast of the current developments, their perceptions and beliefs about BRONJ and its impact on their daily practice.

#14 – 10:36 am

ORAL DISEASE AWARENESS OF MEDICAL PROFESSIONALS IN THE U.S. O Isyutina, P Khurana, G Eckert, N Islam. Indiana U Schools of Dentistry and Medicine, Indianapolis. The physician being the proverbial 'healer' remains the first line of defense for detection of most oral conditions. The medical community should be acutely aware of oral lesions since some malignancies like oral squamous cell carcinomas have still shown no prognostic improvements due to lack of early detection. Objectives: 1) evaluate and compare the awareness of oral conditions among medical professionals and their dental counterparts; 2) design interactive lectures/ continuing medical education (CME) programs for medical students/ practitioners, and refresher courses for the dental group. Methods: An anonymous online survey was run at the Indiana University School of Medicine and School of Dentistry. The questions regarding level of training, need of oral pathology course, and quiz on ten clinical photographs with histories were included. Results: Of the 654 respondents, correct responses were 3.7+/-1.7 (mean+/-standard deviation) for medical and 4.8+/-1.8 for the dental group. The dental group had significantly higher scores ($p<0.0001$). The correct responses increased with training. Some examples of percentages correctly identifying the conditions from the two groups were 38% dental / 5% medical for linea alba, 14%/28% for oral hairy leukoplakia, 79%/45% for pyogenic granuloma, 44%/23% for Langerhans cell disease, and 48%/43% for squamous cell carcinoma. Conclusions: Both groups had difficulty identifying oral conditions. The level of training in both groups was a strong precursor to superior diagnoses. The medical group showed the need of well-structured oral pathology lectures and CME programs. Noteworthy was the feedback from the medical group affirming their lack in identification of oral conditions with seemingly obvious long term impact on oral health.

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#15 – 10:48 am

MYOEPITHELIAL CARCINOMA OF MAXILLARY SINUS POSES DIAGNOSTIC CHALLENGES IN BIOPSY SPECIMENS. A Chan, B Yu, M Kam, A Valantis. Chinese U of Hong Kong, Shatin. Myoepithelial carcinoma (malignant myoepithelioma) is a rare salivary gland tumor, composed almost exclusively of tumor cells with myoepithelial differentiation. The entity was first described in 1970s. The majority of the cases arise in both major and minor salivary glands. Myoepithelial carcinomas of maxillary sinus have rarely been reported, with 7 single case reports in the English literature to our knowledge. Although the entity has been described in details for decades, diagnosis remains a challenge especially in small biopsies from rare locations including maxillary sinus because of the wide variety of architectural and cytomorphological features of the tumor cells. We report two cases of myoepithelial carcinoma occurring in the maxillary sinus which posed a histologic challenge. One was a female of 59 years of age and the other was a male of 31 years of age. Both patients initially presented with a history of facial swelling for 3 to 4 weeks. The biopsy from the maxillary sinus of the female patient was diagnosed to be sinonasal adenocarcinoma and the diagnosis of the biopsy specimen from the maxillary dental root of the male patient was odontogenic carcinoma. Both patients underwent unilateral total maxillectomy. The diagnosis of myoepithelial carcinoma was only arrived after histological examination of the maxillectomy resection specimens. We describe the salient clinical, histological and immunohistochemical features of both cases. Myoepithelial carcinoma can easily be misdiagnosed especially in small biopsies from locations other than major salivary glands. Awareness of the occurrence of this tumor in rare locations including maxillary sinus and a combination of histomorphologic and immunohistochemical approach is advisable to arrive at a correct diagnosis.

#16 – 11:00 am

PRIMARY ALVEOLAR SOFT PART SARCOMA OF THE SINONASAL REGION. N Said-Al-Naief, R Lopez. U of Pacific, San Francisco and Charlotte Radiology, CA. Objectives: To review the clinicopathologic features of alveolar soft part sarcoma (ASPS) and presentation of a well-documented case of the sinonasal region in a middle aged man. Findings: A 46-year-old man presented in 1989 with complaint of blurred vision, ptosis and intermittent epistaxis from the left nasal cavity. Endoscopic examination revealed a 6 x5 cm pedunculated polypoid mass in the left nasal cavity. The radiographic features were consistent with a vascular tumor, causing significant destruction of the skull base & extension through the cribriform plate. Biopsy revealed organoid nests of polygonal to round cells showing clear to eosinophilic cytoplasm, separated by wispy fibrovascular septae and showing pseudoalveolar pattern with central discohesive features consistent with ASPS. Immunohistochemical stains were essentially non-contributory but pathognomonic intracytoplasmic PAS-+ diastase resistant round to rhomboid granules were identified. The patient underwent partial maxillectomy/tumor resection & embolization and radiation therapy, followed by chemotherapy. He remained well until he experienced a recurrence 3 years after the initial treatment, requiring further aggressive surgery and chemotherapy. Currently, the patient remains well with no signs of recurrence or distant metastasis 9 years following the initial diagnosis. Conclusions: ASPS are very rare, aggressive soft tissue tumors accounting for < 1% of all soft tissue sarcomas. They primarily involve the extremities of teenagers and young adult females but approximately 25% of ASPS may be encountered in the head & neck region & the involvement of the sinonasal region is especially rare. The clinicopathologic features of a well-documented example of sinonasal ASPS are presented.

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#17 – 11:12 am

AMELOBLASTIC SARCOMATOID CARCINOMA OF MAXILLA: A CASE REPORT. C-C Li, J Langston, S-B Woo. Harvard School of Dental Medicine, Boston, and Falmouth, MA. Ameloblastic carcinoma is a rare, aggressive odontogenic malignancy which typically affects the posterior mandible in the third to fourth decade. Pain and swelling are common and radiographs show a poorly defined radiolucency. Development of sarcomatoid features in ameloblastic carcinoma is extremely uncommon and a case is presented here. A forty-eight-year-old female presented with a 1.5 cm radiolucency around the apex of the right first bicuspid and endodontically treated right upper canine with destruction of the cortical plate and extension into the nasal cavity and right maxillary sinus. Histopathological examination showed proliferation of both epithelial and spindle cell elements. The epithelial element was consistent with an ameloblastic carcinoma with hypercellularity, brisk mitotic activity and pleomorphic cells. The spindle cell component was also hypercellular and exhibited cytologic atypia; transition between the epithelial and spindle cell components were noted. The spindle cells were positive for AE1/3 and SMA, but negative for GFAP, desmin and S100 protein. This is a report of a rare case of ameloblastic sarcomatoid carcinoma occurring in the maxilla.

#18 – 11:24 am

NEURO-VASCULAR HAMARTOMA OF THE ORAL CAVITY. I Kaplan, D Allon, S Calderon. Rabin Medical Center and School of Medicine, Tel-Aviv U, Israel. Neurovascular hamartoma (NVH) have been reported in the skin, but are very rarely reported in the oral mucosa. Objectives: To describe clinical and pathological characteristics of neurovascular hamartoma of the oral cavity. Materials and Methods: The archives of pathology (1994-2011) have been searched for neurovascular hamartoma (NVH) of the oral mucosa. The microscopic and clinical characteristics have been analyzed. Results: A total of 10 NVH's have been retrieved; 5M, 5F, 12-76 (mean 45) years. Seven occurred in the tongue, and 1 each in the lip, uvula and buccal mucosa. The typical presentation was an exophytic mass, pedunculated or wide-based with a smooth surface. The colors reported were pink, yellowish or red-blue. The clinical diagnosis was 6 irritation fibroma, 3 granular cell or other tumor and 1 mucocele. There were no reported symptoms associated with any of the lesions. Microscopically all lesions were covered by keratinizing squamous epithelium. The underlying connective tissue was generally hypocellular, with varying degrees of collagen deposition. Within this background there were multiple aggregates of capillaries or small-size blood vessels in close proximity to small-medium size nerve bundles. There were no clear borders between the lesion and the surrounding mucosa. The principle differential diagnosis from traumatic neuroma was based on the absence of pain in NVH, whereas pain is typical for traumatic neuroma. In addition, the vascular component is not a feature of traumatic neuroma. In comparison to 10 cases of traumatic (irritation) fibroma, NVH presents significantly more nerve bundles. Conclusions: NVH are not common lesions, but it seems they may be more frequent in the oral mucosa than expected from the literature.

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#19 – 11:36 am

ORAL INFLAMMATORY MYOFIBROBLASTIC TUMOR. A LESION MIMICKING CLINICAL AND HISTOLOGICALLY MALIGNANCY. A CASE PRESENTATION. M Madriz, H Rivera, M Cutanda, JL Castro. Central U of Venezuela, Caracas. Background: Inflammatory myofibroblastic tumor (IMT) is considered a reactive inflammatory lesion affecting several systemic locations, the lungs being the most common. Only a few cases have been reported in the head and neck area, specifically in the oral cavity. Numerous etiologic factors have been associated with IMT including the Epstein-Barr virus. Although this is a benign lesion it behaves clinically in an aggressive manner. Objective: The purpose of this study was to analyze clinical and histological an infrequent case of intraoral IMT with treatment and one year follow-up. Case presentation: A 58-year-old female patient was examined with an intraoral ulcerated mass, measuring 5 cm x 4 cm in diameter, pedunculated, firm in consistency, located on alveolar mucosa extending to the buccal mucosa was. Panorex, CT scan and laboratory routine tests were conducted. Incisional biopsy was performed and submitted for histopathologic study. The tumor was composed of spindle cells within a myxoid stroma with numerous inflammatory cells. An immunohistochemical panel of antibodies including vimentin, desmin, smooth muscle actin, S100 protein, CD68, cytokeratin AE1-AE3, ALK and Ki67 was performed to establish the definitive diagnosis. The tumor cells were immunoreactive with smooth muscle actin, CD68, vimentin, ALK and Ki67. Conclusion: the present case represents an inflammatory myofibroblastic tumor in an infrequent location. It is emphasized that IMT should be recognized as a distinct entity and a definitive diagnosis of IMT should include a correlation between clinical, histopathological and immunohistochemical features, since this lesion simulates a sarcoma histologically and clinically.

#20 – 11:48 am

GRANULOMATOUS FOREIGN BODY REACTION TO CALCIUM HYDROXYLAPATITE FILLER. REPORT OF THREE CASES. S Farahani, M Hein, S Kabani, R Konys, J Sexton, S-B Woo. Harvard School of Dental Medicine, Boston; Brockton, MA; Strata Path Services, Lexington, MA, Fayettesville, NY; Wellesley, MA. Dermal fillers are often used to smooth out wrinkles and treat facial fat atrophy. They are classified into biostimulatory, filling, and combined fillers. An example of a combined filler, which has both biostimulatory and space filling properties, is calcium hydroxylapatite one of the brands of which is Radiesse (Bioform Medical, San Mateo, CA). This is used for the correction of moderate to severe facial wrinkles and folds, and for the treatment of facial fat loss due to human immunodeficiency viral infection. The filler consists of sterile, latex-free, synthetic, injectable calcium hydroxylapatite microspheres (30%), suspended in an aqueous gel carrier (70%). Although this brand of filler is non-toxic, non-irritating and non-antigenic, nodules and foreign body granulomas have also been described and this is a report of three cases of such an adverse reaction. Patients were females aged 46, 67 and 68, all with a history of Radiesse injection to the upper (2) or lower (1) lip for cosmetic reasons. All three developed swellings or nodules and two were painful. Histopathologically, the cases showed foreign material in the form of regularly-sized round, pale purple-to-beige spherules that were not refractile in polarized light, associated with a non-necrotizing granulomatous foreign body reaction with many giant cells and fibrosis. The overlying epithelium did not exhibit hyperplasia. Conclusion: Calcium hydroxylapatite fillers such as Radiesse may induce painful nodules at or near the site of injection that represent foreign body reactions.

Essay Abstracts – Sunday, May 1, 2011

#21 – 12:00 pm

OROFACIAL MANIFESTATIONS OF INHERITED SYSTEMIC HYALINOSIS: CASE REPORT AND REVIEW OF THE LITERATURE. C Haberland, M Copete, S Drukteinis, J Persing. Yale-New Haven Hospital, CT and U of Saskatchewan, Alberta, Canada. Inherited systemic hyalinosis is a rare autosomal recessive disorder caused by a mutation in the ANTXR2 gene located on chromosome 4q21 which results in an accumulation of an amorphous hyaline substance in the papillary dermis and submucosal tissue. The clinical manifestations include severe pain with movement, progressive joint contractures, osteolytic lesions and perianal masses. In the mild form of the disease (previously called juvenile hyaline fibromatosis) patients survive into adulthood and in the severe form (previously called infantile systemic hyalinosis) there is visceral involvement resulting in death within the first 2 years of life. Head and neck manifestations include coarse facial features, gingival hypertrophy, oral mucosal nodules and postauricular and perinasal pearly papules. We report a case of a 13-year-old Hispanic female with mild systemic hyalinosis. She has a history of multiple surgeries to remove hypertrophic gingival tissue and intraoral nodules. Her mouth opening is limited due to hyaline material accumulation periorally. Dental findings include delayed eruption of teeth. Histologic examination of the gingivectomy material showed hypocellular hyalinized areas that contained spindle-shaped cells and dilated capillaries. The hyaline material was periodic acid-Schiff positive and diastase resistant, but did not stain with Congo red. Immunohistochemical studies showed that the spindle-shaped cells were positive for vimentin but negative for a smooth muscle actin and S-100 protein. Review of the literature shows approximately 70 cases of the mild form of the disease have been reported to date. We report a case of this rare condition with an 11-year follow-up and review of the oral manifestations.

#22 – 12:12 pm

CLINICAL AND HISTOLOGICAL EVALUATION OF CHRONIC GRAFT-VERSUS-HOST DISEASE OF ORAL MUCOSA M Magalhães, K Fernandes, F Coracin, A Luiz, P Santos. U of São Paulo, Brazil. Chronic graft-versus-host disease (GVHD) is a major cause of morbidity and mortality in patients undergoing allogeneic hematopoietic stem cell transplantation, and frequently affects the oral cavity. The diagnosis should be established based on clinical and histopathological features. Histological characteristics are not pathognomonic, and one of the main barriers to establish a final diagnostic of GVHD has been the absence of the standardized criteria for histological examination. The objective of this study were to evaluate the correlation between GVHD histological categorization using the NIH Consensus Development Project Pathology Working Group and using Horn's classification; to identify any impediments to use the NIH propose, and to check possible association between histological and clinical classifications. Oral mucosa biopsies of 60 patients who had a clinical and histopathological diagnosis of oral GVHD were analyzed. The histopathological findings were observed in a blind fashion, using two criteria: those recommended by the NIH consensus and those by Horn. Clinical features were collected retrospectively from patient's charts and were classified according to Akpek. The histopathological consensus classification proved to be valid, easily applied and correlated with the Horn's classification. There was no correlation between histological classification and clinical stage of disease. The absence of clinical and histopathological correlation does not diminish the importance of histological analysis of GVHD. Biopsy should always be performed in order to establish the differential diagnosis with infectious lesions, drug reactions or even neoplasias. In such cases, the treatments would be totally different, since GVHD is treated with immunosuppressant.