

histopathologic diagnosis. A diagnosis of mucoepidermoid carcinoma, pigmented, low-grade (AFIP Grading Scheme) was rendered. Subsequent CT and PET imaging revealed no evidence of metastasis, and the tumor was fully resected with negative margins under general anesthesia. Immunohistochemical profile demonstrated positive staining for CK5/6 and p63 with focal S100 and mammaglobin positivity.

**Conclusion:** Mucoepidermoid carcinoma is a common salivary gland malignancy, but the uncommon pigmented variant of MEC can pose confusion for the surgical pathologist.

#### EVALUATING UTILITY OF PROTEIN S100A7 IN PREDICTING PROGRESSION OF ORAL EPITHELIAL DYSPLASIA. DR. LACHLAN

MCLEAN<sup>A</sup>, MRS. LINDA JACKSON<sup>B</sup>, DR. JERROLD ARMSTRONG<sup>A</sup>, DR. ART POON<sup>B</sup>, DR. MARK DARLING<sup>B</sup>. <sup>A</sup> WESTERN UNIVERSITY/LONDON HEALTH SCIENCES CENTER/DIV. ORAL AND MAXILLOFACIAL SURGERY, <sup>B</sup> WESTERN UNIVERSITY/DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

**Objectives:** Protein biomarker, S100A7, in oral dysplasia and squamous cell carcinoma has shown some predictive value for the transformation of dysplasia to cancer. The objectives of this study are: (1) to determine a correlation between the expression of S100A7 and histologic grade of oral dysplastic lesions using immunohistochemistry and an algorithm based on image analysis; and (2) to evaluate whether S100A7 can be utilized as a reliable predictor for progression of low grade oral dysplastic lesions or transformation to carcinoma.

**Findings:** 8 low grade lesions evolved into high grade lesions, and 7 high grade lesions evolved into higher grade lesions, over time. For the low grade lesions, the average S100A7 immunostaining score was 5.6; three were graded low risk and 5 were graded medium risk by algorithm. One low grade and 3 high grade lesions did not progress and remained stable. For these, the average S100A7 immunostaining score was 5.8; one was graded low risk and 3 were graded medium risk by algorithm. Preliminary analysis suggests S100A7 has increased expression in higher risk lesions.

**Conclusion:** The identification of a reliable, quantitative measure in the diagnosis of dysplasia and the ability to predict the likelihood of transformation to malignancy will potentially lead to more individualized treatment and better patient outcomes.

#### LOW-GRADE MUCINOUS SINONASAL ADENOCARCINOMA NON-INTESTINAL

**TYPE: A CASE REPORT. MR. SALVADOR DOMÍNGUEZ-DÍAZ, DR. JAVIER PORTILLA-ROBERTSON, DR. ROBERTO ONNER CRUZ TAPIA, DR. ADRIANA MOLOTLA-FRAGOSO. UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO**

**Objective:** Present a case of low-grade mucinous sinonasal adenocarcinoma, non-intestinal type in maxillary sinus. The intestinal type sinonasal adenocarcinomas (I-TSAC) are a very rare neoplasm with similar architectural and cytological features to a G.I. metastatic carcinomas; the non-intestinal type carcinomas are less frequent than I-TSAC.

**Case:** 70-year-old male with a painless swelling on the zygomatic area, epistaxis and nasal obstruction symptoms with six months of evolution. X-ray examination revealed solid mass occupying the left maxillary antrum, infiltrating the zygomatic arch and the eye orbital floor. The microscopic findings consist in solid-mucinous neoplasm of pleomorphic low columnar cells, the cellular proliferation was arranged in nest with back to back architectural growth pattern, and focal bone invasion, A very loose eosinophilic stroma with mucinous aspect surround the neoplastic nests. Immunohistochemical reactions was positive for CK7, and pS100, being negative for CK20, and MUC-2. PET-scan revealed no systemic disease and confirming no metastatic origin.

**Conclusions:** The SN-ITACs are a very uncommon neoplasm, localized mainly in the ethmoidal sinus, nasal cavity and maxillary sinus. The SN-ITACs are very likely to the intestinal adenomas and adenocarcinomas, these tumors could be positive to CK20, MUC-2, and CDX-2. The differential diagnosis is the pleomorphic adenoma and its malignant counterpart (Carcinoma ex-pleomorphic adenoma), metastatic adenocarcinomas must be included in the differential diagnosis especially those with gastro-intestinal origin. Renal, breast and prostate carcinomas has been reported with sinonasal metastasis.

#### SALIVARY GLAND EPITHELIAL NEOPLASMS IN PEDIATRIC POPULATION: A SINGLE-INSTITUTE EXPERIENCE. DR. SHAODONG

YANG<sup>A</sup>, PROF. JIALI ZHANG<sup>B</sup>, PROF. XINMING CHEN<sup>A</sup>, DR. MING ZENG<sup>A</sup>. <sup>A</sup> SCHOOL AND HOSPITAL OF STOMATOLOGY, WUHAN UNIVERSITY, <sup>B</sup> SCHOOL AND HOSPITAL OF STOMATOLOGY, WUHAN UNIVERSITY, WUHAN, CHINA

**Objectives:** Salivary gland epithelial neoplasms are very rare in children and adolescents. The aim of the present study was to determine the clinicopathologic characteristics of salivary gland neoplasms in patients younger than 19 years from January 2005 to December 2017 at our institution according to the 2017 World Health Organization classification of salivary gland tumors.

**Findings:** During the 13-year period, a total of 77 patients were analyzed. The tumors were located in the parotid (n= 37), submandibular gland (n = 15), and minor salivary glands (n = 25). The mean age was 14.5 years old (ranging from 6 to 18 years). Seventy-two (93.5%) of 77 tumors occurred in the 10–18 year age group, and only 5 in patients aged less than 10 years. The male-to-female ratio was 1:1.08. Fifty tumors (64.9%) were benign and 27 (35.1%) were malignant. The histologic types of adenomas were pleomorphic adenoma (n = 45, 58.4%), myoepithelioma (n = 4, 5.2%), and sebaceous adenoma (n = 1, 1.3%). The histologic types of carcinomas were mucoepidermoid carcinoma (n = 18, 23.4%), secretory carcinoma (n = 4, 5.2%), acinic cell carcinoma (n = 3, 3.9%), adenoid cystic carcinoma (n = 1, 1.3%), and myoepithelial carcinoma (n = 1, 1.3%). Three of the 4 cases of secretory carcinoma were initially diagnosed as cystadenocarcinoma.

**Conclusions:** Salivary gland epithelial neoplasms in Chinese pediatric patients are rare. There was a roughly equal sex distribution. The vast majority of patients were diagnosed in the 10–18 year age group. Parotid gland was most common involved site, and pleomorphic adenoma was the most common

tumor overall. Among the malignant tumors, mucoepidermoid carcinoma was the most common type, followed by secretory carcinoma and acinic cell carcinoma.

#### KI67 IS AN INDEPENDENT PROGNOSTIC MARKER FOR RECURRENCE AND RELAPSE IN ORAL SQUAMOUS CELL CARCINOMA

**PATIENTS.** DR. YUE JING, DR. QIAN ZHOU, DR. HUI-DONG ZHU, MS. YE ZHANG, DR. YUXIAN SONG, DR. ZHANG XIAOXIN, PROF. XIAOFENG HUANG, MS. YAN YANG, DR. YANHONG NI, PROF. QINGANG HU. NANJING STOMATOLOGICAL HOSPITAL, MEDICAL SCHOOL OF NANJING UNIVERSITY

**Objectives:** Ki67 expression was associated with the prognosis of several tumors and played a key role in the choice of medical treatments. However, the diagnostic value of Ki67 in oral squamous cell carcinoma (OSCC) has not been fully-evaluated. In this study, we aimed to elucidate the prognosis value of Ki67 in large number of OSCC patients.

**Findings:** Ki67 expression was detected by immune-histochemical staining methods in 298 OSCC samples and 98 non-tumor oral mucosa samples (62 dysplasia mucosa and 26 normal mucosa), which were acquired from Nanjing Stomatological Hospital, Medical School of Nanjing University. Expression of Ki67 was assessed independently by two professional pathologists. Expression of Ki67 in normal mucosa, mucosa with dysplasia and OSCC tissue was compared. Correlations between Ki67 expression and clinicopathological parameters were analyzed by Chi-square test. Kaplan-Meier survival curves and cox progression analysis were used to assess the diagnostic value of Ki67 for OSCC. We found that Ki67 expression was higher in OSCC tissues than in non-tumor tissues, and it increases with the progression of dysplasia in oral mucosa tissues. In addition, high Ki67 expression in OSCC patients was associated with poorer tumor differentiation ( $P=0.001$ ), more lymph node metastasis ( $P=0.006$ ), and inferior worst pattern of invasion type (WPOI) ( $P<0.0001$ ). Kaplan-Meier survival analysis demonstrated that patients with higher Ki67 expression was correlated with poorer OS ( $P=0.0333$ ), RFS ( $P=0.003$ ), MFS ( $P=0.0032$ ) and DFS ( $P=0.003$ ). Further, multivariate analysis also demonstrated Ki67 expression remained an independent negative prognostic factor for survival for OS, DFS, RFS and MFS.

**Conclusions:** Ki67 overexpression is associated with the progression of OSCC and can serve as an independent prognostic factor for OSCC patients

#### METASTASIS TO THE MANDIBLE FROM AN UNDIAGNOSED PULMONARY ADENOCARCINOMA: A REPORT AND REVIEW OF THE LITERATURE.

DR. PATRICIA DEVILLIERS<sup>A</sup>, DR. KELSEY MANSHEIM<sup>B</sup>, DR. JON HOLMES<sup>C</sup>, DR. LINDSAY MONTAGUE<sup>D</sup>, DR. JOHN VOSS<sup>E</sup>. <sup>A</sup> UNIVERSITY OF ALABAMA AT BIRMINGHAM, DEPARTMENT OF PATHOLOGY, <sup>B</sup> BROOKWOOD BAPTIST HEALTH ANATOMIC AND CLINICAL PATHOLOGY RESIDENCY PROGRAM, BIRMINGHAM, AL, <sup>C</sup> CLARK HOLMES ORAL FACIAL SURGERY, BIRMINGHAM, AL, <sup>D</sup> DYNAMICPATHOLOGY, BRADENTON, FL, <sup>E</sup> MERIDIAN ONCOLOGY ASSOCIATES, MS

**Objective:** Metastatic lesions account for 1% of all oral and maxillofacial malignancies. A quarter of gnathic metastases are discovered before the primary tumor is known. We present a case of adenocarcinoma of the mandible, as first evidence of advanced lung cancer.

**Findings:** A 65-year-old male presented to the oral surgeon with a 6-month history of lower left jaw pain. Panoramic radiograph showed an ill-defined radiolucency inferior to the mandibular canal. A biopsy revealed a scattered glandular proliferation, with a few areas consisting of cribriform architecture and foci of back to back glandular lumens. No features of mucoepidermoid carcinoma were identified. A subsequent PET CT scan showed an ill-defined nodule in the left upper lobe of the lung measuring up to 2.5 cm in greatest dimension. Multiple hilar, subcarinal, and paratracheal nodules were also identified, concerning for nodal metastasis. Immunohistochemical stains were then performed on the original biopsy from the mandible and the tumor cells stained positive for TTF1, Cytokeratin 7, and Napsin A, suggestive of adenocarcinoma of pulmonary origin. Consequently, MRI of the brain identified lesions in the parietal and frontal lobes, measuring up to 3.4 cm. Treatment for the patient included chemotherapy with Pemetrexed (Alimta) and carboplatin, immunotherapy with Keytruda, and once tapered off, palliative radiotherapy.

**Conclusion:** Primary adenocarcinoma of the jaw is extremely rare, except for 2–3% central mucoepidermoid carcinomas. The possibility of a metastatic tumor should be a consideration when encountering unusual histomorphology of an adenocarcinoma in the jaw bone.

#### FASCIN EXPRESSION IN AMELOBLASTOMA, ODONTOGENIC KERATOCYST AND DENTIGEROUS CYST.

DR. SAMIRA DERAKHSHAN<sup>A</sup>, DR. SEDIGHEH RAHROTABAN<sup>B</sup>, DR. NARIMAN NIKPARTO NIKPARTO<sup>C</sup>. <sup>A</sup> FASCIN EXPRESSION IN AMELOBLASTOMA, ODONTOGENIC KERATOCYST AND DENTIGEROUS CYST, <sup>B</sup> DEPARTMENT OF ORAL AND MAXILLOFACIAL PATHOLOGY, SCHOOL OF DENTISTRY, TEHRAN UNIVERSITY OF MEDICAL SCIENCES, <sup>C</sup> ORAL AND MAXILLOFACIAL SURGERY RESIDENT, TEHRAN UNIVERSITY OF MEDICAL SCIENCES

**Objectives:** The purpose of this study was to assess and compare fascin expression in 4 lesions which differ in aggressiveness: odontogenic keratocyst (OKC), dentigerous cyst (DC) and two types of solid and unicystic ameloblastoma, and to find out whether fascin expression is associated with aggressiveness of these lesions or not.

**Methods:** 9 solid ameloblastomas (SA), 12 unicystic ameloblastomas (UA), 13 OKC and 12 DC were assessed in this study. The slides were examined at x400 magnification. Finally the lesions were divided into two groups based on microscopic examination, “low expression” and “high expression”.

**Findings:** There were no significant differences between the lesions, except that fascin expression was slightly higher in UA in comparison to other groups in intensity and count of the immunostaining cells.

**Conclusions:** The results of this study suggest that fascin might be more involved in cell invasion and migration (as in carcinomas) than local aggressiveness. We suggest more studies