Objectives: the aim of this study was to analyze the radiological parameters and histological features and to evaluate the immunoexpression of bone-related proteins in condylar hyperplasia, comparing to age and gender of the affected patients. Forty specimens derived from the surgical treatment of condylar hyperplasia were selected and clinical data were retrieved from the patient files. Radiological information was obtained from panoramic radiographs comparing the affected to non-affected sides. All cases were histologically reviewed and immunoreactions against TRAP, PTHrp, podoplanin and RANK were performed in all cases by the immunoperoxydase technique. Data were descriptively and statistically analyzed comparing both gender and age of the patients with radiological, histological and immunohistochemical features.

Findings: radiological parameters did not correlate with age and gender of the patients; proportion of bone tissue:bone marrow and fibrous:cartilage layers showed no differences when comparing age of the affected patients, but gender of the patients correlated with the latter. There were no differences on TRAP, PTHrp, podoplanin and RANK expression according with gender and age of the affected patients.

Conclusions: there were no differences on radiological parameters, proportion of bone tissue:bone marrow and fibrous: cartilage layers and expression of bone-related proteins according with age and gender of patients affected by condylar hyperplasia. Females presented a higher proportion of fibrous:cartilage layers than males.

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BILATERAL ORTHOKERATINIZED ODONTOGENIC CYSTS OF THE MANDIBLE. CASE REPORT AND REVIEW OF THE LITERATURE.

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Introduction: First described by Wright in 1981, orthokeratinized odontogenic cyst (OOC) represents a developmental condition derived from epithelial dental lamina rests. Radiographically, OOC appears as a unilocular radiolucency associated with an impacted mandibular third molar. Occasional examples of bilateral/multicentric OOCs have been reported in the literature. Here, we present the clinical, radiographic and microscopic features of a patient with bilateral mandibular OOCs.

Case report: A healthy 19-year-old male presented with asymptomatic unilocular radiolucencies associated with left and right impacted mandibular 3rd molars. Both molars were extracted and the associated lesions enucleated. Microscopic examination of both specimens showed identical microscopic features consisting of cystic cavities lined by orthokeratinized stratified squamous epithelium with hypergranulosis. A diagnosis of bilateral OOCs was rendered. No recurrence was evident after 4-months.

Discussion: Six cases (including ours) of bilateral/multicentric OOCs have been documented in the English and Spanish literature. An analysis of the published demographics of this condition showed that most bilateral/multicentric OOCs have a striking predilection for young adult males (age range: 19-41 years; mean age: 27.3 years) with only one case presenting in a female. Bilateral OOCs are almost exclusively associated with impacted mandibular third molars. However, one report documented OOCs in all quadrants. The follow-up period for these cases ranged from 4 months-13 years with no recurrence stated.

Conclusion: Bilateral OOCs are uncommon and appear to have an excellent prognosis with no recurrence expected. However, more reports with long-term follow-up are needed to draw meaningful conclusions about their biological behavior.

COWDEN'S SYNDROME DIAGNOSED BY ORAL LESIONS: CASE REPORT AND REVIEW OF THE LITERATURE.

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Cowden's syndrome (CS), also known as multiple hamartoma syndrome, is a rare genodermatosis of autosomal dominant inheritance and variable phenotype. Its origin is a PTEN (phosphatase and tensin homologue) gene mutation, resulting in the development of multiple hamartomatous lesions and an increased risk of malignancy. Clinically, it is characterized by multiple mucocutaneous lesions, including oral and labial papillomatous papules. Oral manifestations in CS are frequent and usually precede the establishment of malignant tumours. Their correct diagnosis may improve early recognition of this entity, leading to an appropriate genetic counselling and close surveillance for the early detection of malignant processes associated with SC.

We report a case of a 58-year-old male patient who was referred to the Oral Pathology Department of Andrés Bello University, Viña del Mar, Chile, with a presumptive diagnosis of "multiple papules" in the oral cavity. Extraoral examination revealed macrocephaly, facial trichilemomas and acral keratosis. Upon intraoral examination, multiple papillomatous lesions were observed. A biopsy of the oral lesions was taken, which revealed fibro-epithelial hyperplasia. Endoscopy of the upper digestive tract showed acanthosis of the oesophagus and multiple polyps on the antrum of the stomach and duodenum. Thyroid ultrasound showed uninodular goitre. The patient was diagnosed with Cowden's syndrome and has been followed up closely by a multidisciplinary team in order to diagnose any development of malignant tumours.

SPREADING OF GLANDULAR MALIGNANCY MIMICKING BONE LESION: REPORT OF TWO CASES.

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Peripheral nerves are target for local invasion and spreading in pancreatic, gastric, prostate, and head and neck cancers. Adenoid cystic carcinoma (ACC) accounts less than 10% of salivary gland neoplasms with dual cell population, typically exhibiting three architectural patterns. Distant metastasis and neural involvement are common clinical features.

Objectives: To report two rare cases of ACC arising from parotid gland and extending into mandible through mandibular foramen.

Results: A 50-year-old woman and 49-year-old man presented with pain and parestesia in the left face. A swelling was observed and computed tomography detected osteolytic lesion with irregular margins involving complete body and ramus in the left side of the mandible. Clinical diagnosis was established of osteomyelitis and sarcoma. Microscopically, both

tumors presented as solid masses with few ductiform structures. Tumor cells had basaloid appearance with large pleomorphic and prominent nuclei or densely hyperchromatic with scant cytoplasm. Frequent mitotic figures and comedolike necrosis were seen. Tumor infiltration was detected in the perineurial region of the inferior alveolar nerve and within bone medula. In one case, tumor cells has spread to the dental pulp. Immunohistochemically, tumor cells in one case were positive for CK7, 34BE1, CD117, Ki67 (>5 in 10hpf) and negative for p63 and CK5/6.

Conclusion: Two rare cases of mandibular extension of a parotid gland ACC through the mandibular foramen is presented. Computed tomography and magnetic resonance confirmed primary ACC in the parotid gland, suggesting access of tumor cells through mandibular canal. Meticulous clinical and radiographic analysis were essential to detect primary tumor for an appropriate therapy.

DIFFERENTIAL MAST CELL POPULATION IN SUBTYPES AND METASTATIC ORAL SQUAMOUS CELL CARCINOMA.

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Tumor microenvironment is a dynamic network, orchestrated by neoplastic, non-neoplastic cellular, and non-cellular components in tumorigenesis, cancer progression, and metastasis. Mast cells (MCs) can modulate tumor cell activity during angiogenesis and extracellular matrix degradation in breast and lung cancers. MCs are distinguished according neutral proteases like tryptase (MCT), tryptase/chymase (MCTC), and chymase only (MCC). Its role in oral cancer remain controversial. Oral squamous cell carcinoma (OSCC) represents 90% of cases of head and neck cancer with considerable mortality and morbidity.

Objectives: To identify MC population in two topographic regions among OSCC subtypes.

Material and methods: Immunohistochemical study of mast cell tryptase and mast cell chymase was performed in 54 cases of OSCC. Positive cells were counted in 10 consecutive fields at 400X magnification in peritumoral and intratumoral regions. Negative control was considered at the surgical margin histologically negative.

Results: Overall MC density increased 6.3 times in OSCC. MCTC density was significantly higher than MCT ($p<0.001$) mainly in the peritumoral region. High density of MCTC was associated with smokers ($p<0.046$) and metastatic tumors ($p<0.048$). Interestingly, mast cell phenotype of degranulation was registered only in chymase-positive MCs. MCTdensity was low in the periphery of basaloid SCC and higher in less differentiated tumors.

Conclusion: MC population is highly increased in OSCC predominantly with MCTC.High density of chymase-positivity cells suggests a subset of MC chymase only in OSCC and its expression may be related to tobacco consumption, metastasis, local invasion, and differentiation.

SECRETED PROTEINS AS POTENTIAL BIOMARKERS IN ADENOID CYSTIC CARCINOMA OF THE SALIVARY GLANDS.

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Secreted proteins are involved in several physiological mechanisms. In solid tumors, it can be used as diagnostic and prognostic tools. Human anterior gradient 2 (AGR2) and CD10 are proteins secreted in body fluids in prostate cancer. The main of this study was to evaluate expression of the secreted proteins AGR2 and CD10 in adenoid cystic carcinoma (ACC) of the salivary gland. A total of 20 cases of ACC of the salivary glands were examined by immunohisto-chemistry method. Female was more affected (70%) with age varying from 10 to 79. Tumor sizes ranged from 1.3 to 9 (mean 2.7 cm), located mostly in minor salivary glands and submandibular gland. Eleven cases showed neural invasion. AGR2 was typically citoplasmatic and focally expressed in 75% of cases. Its expression was observed in all solid subtype, followed by tubular (88.8%) and cribiform (55.5%). Interestingly, half of ACC exhibited AGR2 expression in the extracellular space or inside ductiform structures. Clinically, neural invasion, nodal involvement, and systemic metastasis were associated to AGR2 expression. The surface protein CD10 was also focally expressed mainly in ductal structures in solid and tubular subtypes. Interestingly, its expression was restricted only to stroma in cribriform subtype. This secreted protein was also found freely inside ductiform structures. Furthermore, peripheral nerves involved in the tumor significantly expressed CD10 ($p = 0.029$) in the tubular subtype.

Conclusion: Neural invasion may involve participation of CD10 in ACC of the salivary gland. Further studies should confirm if extracellular AGR2 and CD10 represent potential biomarkers for salivary detection as diagnostic and prognostic tools in the clinic.

METASTATIC NEUROENDOCRINE PROSTATE CANCER, AN AGGRESSIVE PROSTATE MALIGNANCY: A REPORT OF TWO CASES WITH ORAL MANIFESTATIONS.

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Objectives: Neuroendocrine prostate cancer (NEPC) is a lethal prostate malignancy with a median survival of less than 1 year from time of detection. NEPC can occur de novo or more commonly as a treatment emergent phenomenon (t-NEPC). t-NEPC occurs in a subset of patients with metastatic-castration resistant prostate cancer. Two cases of t-NEPC with oral manifestations are presented highlighting the pathologic features and the varied clinical context in which these lesions presented.

Patients and Methods: Case 1) A 79 year-old man with a history of prostate adenocarcinoma undergoing hormone treatment presented with a fungating mass of the right maxilla and palate, clinically suspicious for squamous cell carcinoma. Biopsy revealed a high grade neuroendocrine carcinoma. Case 2) A 76 year-old man with a history of metastatic prostate adenocarcinoma receiving zoledronic acid and denosumab treatment for bony metastases, presented with mandibular fracture. A segmental resection without reconstruction with debridement