

examination. Unexpectedly, small foci of adenocarcinoma were found, with spiculae of medullary bone, prominent inflammatory changes and bacterial deposits. At immunohistochemistry, the tumour positively stained for CK7+ and TTF1+ but not for CK20 and PSA. Additional clinico-radiological investigations revealed a primary tumour of the lung, subsequently characterized as acinar adenocarcinoma.

Metastases to the oro-facial tissues can involve the oral mucosa, jawbones and salivary glands; lung, kidney, prostate and colon-rectum in males, uterus, breast, ovary and lungs in females are the most frequent primary localisations. It is accepted that metastatic neoplasms in the oro-facial region show high predilection for sites with peculiar clinical conditions, such as the parodontal inflammation or edentulous individuals bearing prosthesis.

The molar and premolar regions of the jawbones and the post-extraction sites frequently are involved; this was related to the rich vascularisation and high bone marrow content and/or to re-organisation of the blood clot of such sites. This report highlights the importance of histological examination of gingival-parodontal inflamed tissues when plaque and calculus accumulations have been excluded as primary causes.

DELAYED SCLEROSING GRANULOMATOUS REACTION TO HYALURONIC ACID REINFORCED WITH POLY-HYDROXY-ETHYL-METHACRYLATE INJECTION. DR. SAVERIO CAPODIFERRO^A, PROF. EUGENIO MAIORANO^A, DR. PASQUALE SPORTELLI^B, DR. ELIANO CASCARDI^A, PROF. ANNA NAPOLI^A, PROF. GIANFRANCO FAVIA^A. ^A UNIVERSITY OF BARI, ^B POLICLINICO HOSPITAL OF BARI

Objective: On the basis of manufacturers' and some authors' claims, all commonly used injection materials for aesthetic correction and different formulations of hyaluronic acid (HA), with or without adjunctive substances, result in no immunogenic reactions or other complications; nevertheless, unexpected, late or early adverse reactions have been reported. Overall, HA reinforced with hydroxyethyl-methacrylate (HEMA) can promote the formation of late foreign body granulomas (FBGs). The authors report on the histological (conventional and confocal laser scanning microscopy) features of a case occurred 10 years after the injection of HA+HEMA in the lower lip of a female patient.

Findings: The nodular lesion was mainly composed by several almost empty and polygonal spaces, surrounded by fibrous collagen and sparse multinucleated giant cells, pointing at long-standing FBG. The polygonal spaces were 20–120µm in size and partly filled with translucent particles, with a broken-glass appearance.

Conclusions: HA is a constituent of several normal tissues and, as such, does not lead to adverse reactions. When FBG is present, one should argue that additional components were bound to HA. HEMA has been used as a stabilizer of HA-based fillers but it is known to induce transient macrophagic reaction, fibroblast proliferation with scarce collagen deposition and multinucleated giant cells. The morphological features of the present case are consistent with previous injection of HA+HEMA and the prolonged time interval from injection to clinical manifestations indicates the adverse reaction is slowly progressive. Also, it was postulated that macrophages would incorporate foreign

particles, thus keeping the foreign particles in a latent stage. Subsequently, additional priming events (e.g., supervening infections) would be needed to re-activate macrophages, lead to multinucleated giant cell accumulation and finally to wide granulomatous reaction. Such pathogenetic mechanism may explain the prolonged course of the disease, with only late development of clinically detectable nodular lesions.

LYMPHANGIOGENESIS MARKERS IN METASTATIC LYMPH NODES OF ORAL SQUAMOUS CELL CARCINOMA. DR. HAIZAL HUSSAINI^A, DR. NURUL RUZIANTEE IBRAHIM^B, DR. BENEDICT SEO^A, PROF. ROSNAH ZAIN^C, PROF. ALISON RICH^A. ^A UNIVERSITY OF OTAGO, ^B INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA, ^C MAHSA UNIVERSITY

Regional lymph node metastasis is a crucial negative prognostic factor in oral squamous cell carcinoma (OSCC). Whilst angiogenic and lymphangiogenic factors have been extensively investigated in primary OSCC, their expression in metastatic lymph nodes remains uncertain.

Objectives: To investigate the expression of markers associated with lymphangiogenesis [vascular endothelial growth factor (VEGF)-C, D, VEGF receptor 3 (VEGFR3) and prospero homeobox 1 protein (PROX1)] in cervical lymph nodes from OSCC patients with and without metastatic deposits. Formalin-fixed paraffin-embedded (FFPE) blocks were accessioned from the Oral Cancer Research Coordinating Centre (OCRCC), University of Malaya, Malaysia. Samples were divided into two groups; Group A comprised cervical lymph nodes with histologically confirmed metastatic deposits from primary OSCC (n=17) and Group B, cervical lymph nodes from patients with primary OSCC without metastatic deposits, (n=17). Immunohistochemistry (IHC) was undertaken with antibodies against VEGFC, VEGF-D, VEGFR3 and PROX1. Quantitative analysis using ImageJ was used to delineate the extent of positivity (proportion and intensity) and lymphatic vessel density (LVD). Three samples from each group were subsequently selected for gene expression analysis of the lymphangiogenic markers (VEGFC, VEGFD, VEGFR3 and PROX) using qPCR.

Findings: IHC showed significantly greater VEGFC expression in Group A compared with Group B (p=0.0002). Significant positive correlation was found between VEGFC and TNM stage (p=0.004). No statistically significant differences were observed in the protein and gene expression level of the other tested markers.

Conclusions: This is the first study demonstrating significant overexpression of VEGFC in positive lymph nodes and suggests that VEGFC is an important growth factor involved in OSCC lymph node metastasis.

ACTIVATING NOTCH1 MUTATION IN HIGH-GRADE EVOLUTION OF ADENOID CYSTIC CARCINOMA. DR. CHUAN-XIANG ZHOU^A, PROF. TIEJUN LI^B. ^A PEKING UNIVERSITY SCHOOL AND HOSPITAL OF STOMATOLOGY, ^B PEKING UNIVERSITY SCHOOL AND HOSPITAL OF STOMATOLOGY

Objective: Salivary adenoid cystic carcinoma (SACC) is identified as a tumor with biphasic differentiation of epithelial