Chemotherapy drugs block the reproductive capacity of basal ephytelium cells. The absence of new cells produce a thinning of oral mucosa, that becomes atrophic and predisposed to ulceration. This condition may cause significant systemic anomalies such as malnutrition, opportunistic infections, and delay in the chemotherapy course.
Result: Severe oral mucositis often causes cancer patients to partially or completely discontinue/ modify cancer therapy regimen, which adversely affects the curative effects of cancer. Some individual characteristics such as age, sex, nutrition, oral hygiene, salivar secretion, smoke and genetics patterns can influence the onset and the gravity of oral mucositis. The most common chemotherapy drugs that can produce oral mucositis are: etoposide, metotrexato, 5-fluoruracile, cisplatino, citarabina, irinotecan, paclitaxel e dacarbazina. Oral mucositis can interest every part of the oral mucosa, however the most frequent zone are the non cheratinized areas such as the internal part of cheeks and lips, soft palate, lateral and inferior part of the tongue and oral flor. Therefore, the control of oral mucositis is important and indispensable for improvement of quality of life and prognosis of patient affected by acute lymphoblastic leukaemia.
Conclusion: It is necessary to emphasise the importance of early detection of OM through a close clinical oral examination of children and adolescents with ALL undergoing to chemotherapy. Pain and infection control and the maintenance of good levels of oral hygiene are fundamental during the management of OM. Therefore, dentists need to be part of the oncology care team, and thus contributing and helping with ALL treatment.

Role of intraoral ultrasound in evaluating tumor depth and thickness: case report

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Aim: The management of patients affected by early stage (T1-T2) of oral squamous cell carcinoma (OSCC) clinically N0 is still controversial. In fact, even if in 30% of cases the post surgical follow up has shown the presence of occult metastases in latero-cervical lymph-nodes; on the other hand, in 70% of patients with OSCC clinically and radiographically N0, the selective latero-cervical lymph-nodes dissection proved to be an overtreatment. Tumor depth of invasion (DOI) is the extent of tumor growth beyond lamina propria; it is different from tumor thickness that includes exophytic and endophytic growth. The Literature considers DOI as the most important prognostic factor in prediction of local recurrence and occult lymph-node metastases; nevertheless a precise cut-off value of DOI, indicating the need of a neck selective surgical treatment is still uncertain. Moreover, in OSCC cases with DOI≤4mm or close to implant-prosthetic rehabilitations, Computed Tomography and Magnetic Resonance (MRI) are unable to detect the tumor. The question is whether an alternative diagnostic method could detect reliable values of DOI, in order to provide a pre-operative indication to latero-cervical lymph nodes selective dissection in stage cT1-T2 N0 M0 patients. Ultrasonography is a non-invasive, radiation free, easy-to-use and inexpensive exam used in oral pathology for the diagnosis of: mucoceles, salivary glands diseases, lipomas and vascular lesions. This case report describes an intraoral ultrasound (IUS) application in the evaluation of oral cancer parameters that influence therapy and prognosis and the proposal for its inclusion in OSCC diagnostic flowchart.
Methods: A 80-year-old male patient with negative history for risk factors associated with oral cancer, presents an OSCC on the left side of tongue. The patient brought at the first visit, an head and neck MRI with/without constrast agent. The IUS of the lesion was performed by E-CUBE 15 EX scanner (Alpinion, Seoul, Korea) with linear intraoperative "hockey stick" probe with 8-17 transducer MHz, while the neck ultrasonography was performed by a 3-12 MHz transcutaneous linear probe at the Operational Simple Unit of Diagnostic and Ultrasonographic Innovations. The DOI was calculated by intraoral ultrasound device and it was matched with the correspondent parameter derived by post-operative histological specimen examination and with the tumor total thickness measured also by the IUS. The procedure was done to investigate a correlation between the two types of growth. It was also verified whether the aspecific lymphadenopathy detected by ultrasound corresponded to lymph-node metastasis, then confirmed by TNM.
Result: The DOI calculated by the IUS was 4mm while it was 3mm at the histological examination. So the IUS seemed not to underestimate DOI. MRI reported one pathological lymph node in left laterocervical region appearing as a non-specific lymphadenopathy on neck ultrasonography; this has been confirmed as metastasis by the TNM. The total histological thickness was 5mm.
Conclusion: The IUS seems not to underestimate DOI, then it could be considered a diagnostic support for OSCC surgery and especially for targeting those patients who need selective treatment of the neck. Difference between DOI and thickness

values confirm that thickness could be a misleading parameter in predicting disease biological behavior. Ultrasonography of neck lymph nodes, performed contemporarily to IUS, could be used as a first step to formulate a diagnostic suspicion of nodal metastasis in OSCC N0 clinical staged patients.

The "dark side" of glucose transporter 1 (GLUT1) in opmd and oscc: an experimental study

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Aim: Oral pre-malignant and malignant diseases are a group of clinical conditions whose diagnosis, therapy and follow-up are complex and often belated. Therefore, it is essential to acknowledge and identify possible evolution's markers of OPMDs, in order to correctly plan the patient's care pathway. Among these, the proteins involved in glucose metabolism are promising: GLUT1 is an integral membrane glycoprotein involved in basal glucose uptake.
Methods: This study has been performed in a cohort of 43 patients, afferent the Oral Medicine and Oral Pathology Unit, Dept. of Dentistry, San Raffaele Hospital, Milan, showing clinical lesions compatible with OPMDs [Leukoplakias: 19/43 (44,19%); OLPs: 16/43 (37,21%)] and OSCC [8/43 (18,60%)]. In order to confirm the diagnosis of the oral medicine expert, after obtaining informed consent, incisional biopsies were performed, following the 14 days-rule. The specimens were routinely processed by the pathologist: serial sections from the samples were dyed with the immunohistochemical technique using the streptavidin-peroxidase method and monoclonal antibodies anti-GLUT1. The staining intensity was classified as 1,2,3 for respectively weak, moderate and strong intensity by two observers, that analyzed independently the samples to exclude any possible bias before conveying to the final evaluation. Statistical analysis was performed using the Pearson Chi-square and Fischer's exact test (JMP 9.01 software).
Result: The pathologic examination allowed the stratification of the samples by histologic features as follow: 12 keratoses without associated inflammatory signs (27,91%), 18 lesions with chronic lichenoid infiltrate (41,86%), 5 lesions associated to dysplastic changes (11,63%) and 8 carcinomas (18,60%). Analyzing the staining intensity of GLUT1 in those groups, it was possible to underline some interesting findings; in the lesions without inflammation, the staining was weak in 8/12 (66,67%), moderate in 4/12 (33,33%) and strong in no lesions. On the counterpart, for the lesions characterized by inflammatory elements the staining was weak in 7/18 (38,89%), moderate in 11/18 (61,11%) and strong in no lesions. Therefore, in the dysplastic lesions, the staining was weak in no lesions, moderate in 3/5 (60,00%) and intense in 2/5 (40,00%) while in all cases of oral cancer the staining intensity was strong. These data entail a statistically significant difference in the staining intensity of GLUT1 between the lesions with and without inflammation, the dysplastic lesions and the carcinomas ($p < 0,0001$).
Discussion: The increasing marker's expression respectively in keratoses, inflammatory lesions, dysplastic areas and OSCC is an important finding: the evidence-based literature provides only a few studies about the role of GLUT1 in the inflammatory diseases of the oral mucosa and its involvement in malignant transformation, while well known is its over-expression in many of the human neoplasms, including the OSCC, as we confirmed. This is connected to increased glycolysis-related energetic supply typical of the tissues stressed by an afinalistic growth. Furthermore, the marker's expression in the lesions with an inflammatory substrate, which is higher in lesions with erosive clinical appearance compared to those with keratotic, reticular or atrophic features, could suggest the role of inflammation in the multi-step oral carcinogenesis. The role which is certainly played by GLUT1, a promising marker useful for the identification of lesions more prone to evolve into cancer, that needs a more strict follow-up.

Recurrence of leiomyosarcoma with oral localization presenting in a symptomatic dental context: a case report

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Aim: Leiomyosarcomas (LMS) account 10-20% of soft tissue sarcomas, arising in adults and affect women more frequently. It is a rare entity in the head and neck, it manifests as a solid, non-painful mass, accounting for 1% of malignant neoplasms in this area. Only 0.065% of the LMS had an intra-oral location because of the lack of smooth muscle at this side. Therefore it has been proposed that tonaca media of blood vessels might be the origin of oral