CASE REPORTS

Case report

Detection of OSCC in a misdiagnosed tongue ulcer of a young woman with the aid of toluidine

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Background. Oral squamous cell carcinoma (OSCC) still maintains a high mortality rate and severe consequences due to the diagnostic challenge in detecting lesions at an early and easily treatable stage. Epidemiology shows rising trends of oral cancer among population under the age of 40, probably in relation to HPV infection and/or local inflammation. Mashberg test i.e. toluidine blue (TB) test can be a used as a diagnostic adjunctive tool for the early detection of oral cancer and dysplastic premalignant lesions. Efficacy of TB staining has been widely supported by evidence-based literature and TB still remains the most reliable among the visual tools to improve the detection of oral malignancies in the clinical practice of oral medicine. Our aim is to report a recent clinical case in which using TB test guided conventional biopsy, an OSCC was diagnosed in a young woman presenting a tongue "aphtous" lesion non-healing from two months.
Case Presentation. E.B., female, 39-year-old, came for a first visit at the Dental Clinic - Hospital San Raffaele, Milano. She was systemically healthy, non-smoker nor drinker and complained a sore tongue that was recently challenging her routinely habits such as speaking, eating and swallowing. The dentist classified the lesion as an aphtous ulceration and prescribed a generic mouthwash two months before. The clinical examination showed an irregularly oval mucosal ulceration 2 cm wide, without peripheral erythema, on the right border of the tongue between the middle and posterior third, extended to the floor of the mouth. The palpation was painful, and revealed firmness of the deeper tissues with fixation. The lesion area was in contact with the sharp edges of the lingual cusps of the mandibular molars and the patient complained about persistent biting trauma. Considering the persistence of the lesion, the oral pathologist decided to stain the suspicious lesion with TB (T-Blue kit Zila Pharm) then to proceed immediately with a punch biopsy. The TB test was strongly positive with intense blue staining clearly showing a broader area of abnormal mucosa. The diagnosis was then confirmed 3 days later with the final result of the histological examination i.e. infiltrating well-differentiated squamous cell carcinoma of the tongue.
Conclusion. Oral medicine is striving for new diagnostic tools and devices that may help the clinician to perform an early detection of the premalignant and malignant lesions. Any change in color, shape and dimension of an oral lesion should be regularly monitored and recorded in the patient's file. In this case report the toluidine blue test performed during the first visit clearly showed with the intense blue staining the unfavorable aspect of that misdiagnosed "aphtous lesion" promptly leading to a correct diagnosis of OSCC. The patient was immediately referred to the head and neck surgery unit for the further imaging tests and the oncologic surgery, that was performed two weeks later.

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Case report

The role of the dental practitioner in diagnosis of Cowden syndrome: a case report

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Introduction. Several known autosomal dominant hereditary syndromes involve the head and neck region. Most of them just involve one single subsite such as the skin, the endocrine system or the gastro-digestive tract. In a minority of cases there is a multi-organ involvement as in Cowden Syndrome (CS) or Multiple hamartoma Syndrome, a rare condition with important implications represented by an increased risk of malignancies, particularly breast, thyroid and endometrium cancers. The disorder take origin from the mutation of the tumour suppressor gene PTEN located at 10q22-23. From a review of literature the PTEN protein product promote cell death and the alteration of cells' proliferation, resulting in hamartomatous growths. Mucocutaneous lesions are present on almost 100% of affected individuals. The prevalence of the Cowden Syndrome is estimated approximately 1:200 000, and usually it develops during the I - II decade of life.
Case report. A 52-year-old female patient with a mild mental handicap was referred to our Oral Medicine and Oral Oncology Clinic with a chief complaint of irregularity on her gums. The patient gave a history of thyroidectomy 7 years before because of a recurrent toxic nodular struma. In 2014 a CT scan revealed the presence of a myelo-lipoma of the left adrenal gland and an adenoma of the right suprarenal gland. Moreover, the patient was repeatedly treated for multiple cutaneous fibromas. Finally, the mother and the father of the patient were first cousins and they both came to death, the mother died of diabetes complications, while the father died of heart attack. Malformation and mental handicap were not known in the family of the patient. At the clinical observation, the gums showed several papules with a warty aspect on the attached gingiva. An incisional biopsy was performed revealing papillomatosis, negative for p16. Based on the medical history, clinical examination, and histopathological findings a diagnosis of CS was considered and the patient was referred for a genetic assessment. The genetic analysis disclosed an heterozygosis of the mutation of c.562delT, p. (Tyr188Ilefs* 11) of the gene PTEN, which was never highlighted in healthy or ill subject affected by CS, but the protein produced by this gene was pathogenetic with CS.
Conclusion. The finding of mutation c.562delT, p. (Tyr188Ilefs* 11) in the PTEN gene confirmed the clinical suspect of CS. Consequently, patients with such diagnosis have to follow periodic controls and instrumental examinations: colonscopic, dermatological, breast and gynaecological evaluations are fundamental for early diagnosis of neoplasms in such anatomic sites; CT or MR of the abdomen together with urine examination are recommended every 2 years to evaluate the progression of renal lesions, finally, MR of the brain is mandatory to detect malignancies of this district. The diagnosis of CS should reflect specific major and/or minor clinical criteria that are periodically renewed; in this case, the team approach of several specialist, including the general dental practitioner, is fundamental to reach the correct diagnosis.

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Case report

Mesenchymal stem cells derived from inflamed gingival tissue for *in vivo* bone tissue engineering: preliminary results

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Introduction. Oral cavity has been investigated for several provided stem cells "niches"; among them, gingival mesenchymal stem cells (GMSCs) represent an alternative source of mesenchymal stem cells (MSCs) since their features make them ideal for bone tissue engineering (1). Indeed, compared to bone marrow-MSCs, GMSCs are easier to be harvested and showed better performances in proliferation and osteogenic differentiation abilities (2, 3). Our aim was to analyze the ability of GMSCs harvested from periodontally compromised teeth to regenerate bone tissue *in vivo*.
Materials and methods. GMSCs were harvested from periodontally compromised (Test group) and healthy gingival tissues (Control group) and grown according to the methodology described in our previous study (3).
After proliferation, 2x10^5 GMSCs of both groups were seeded on a Poly-L-lactic Acid (PLLA) scaffold with 5-20 µm micropores, produced by Thermally Induced Phase Separation technique (TIPS), in presence or not of osteogenic differentiation factors.
Then scaffolds were transplanted subcutaneously into the dorsal region of 2 immuno-compromised rats (2 scaffolds for each rat), following procedures approved by the Italian Minister of Health (No.1185/2015). After 8 weeks from the transplant, the animals were sacrificed, the tissue samples harvested and immuno-histochemical and RT-qPCR analysis of canonical osteogenic genes were performed to evaluate the rate of bone tissue neo-formation.
Results. The results of immune-histochemical analysis show neo-formation of bone tissue in both groups, with no difference. Moreover, there is a high level of inflamed cells, probably related to the synthetic scaffolds applied, certainly more versatile but also more immunogenic, compared to the natural ones. Finally, it does not seem that the osteogenic factors had any influence on the differentiation rate of GMSCs.
RT-qPCR analysis shows the increased expression of canonical osteogenic genes (e.g. RUNX2, Osteopontin, Osteocalcin and Alkaline Phosphatase) in all samples analyzed.
Conclusions. Interestingly, a much higher expression level of the osteogenic genes was observed in the experimental group compared to the control group, suggesting a possible role of inflamed environment on improving the osteogenic differentiation ability of stem cells.
Even if preliminary, these observations demonstrated that GMSCs from periodontally compromised teeth, usually discarded tissues, may represent a valuable stem cell source for bone tissue engineering.

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Case report

Malignant transformation of a clinically and histologically healed lichenoid lesion after amalgam removal: a case report

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Introduction. Lichenoid contact lesions (LCLs) have been described as clinically and histologically undistinguishable from Lichen Planus (LP) but, unlike LP, in LCLs an etiologic factor is frequently recognized. Many studies report that LCLs associated with amalgam restorations may regress after amalgam removal, especially with positive pacth tests (1). Nevertheless, despite clinical remission, lichenoid histological features can persist even in normal looking mucosa as we documented in our recent paper (2). The risk of malignant transformation of LCLs is still a controversial issue. Indeed, only one study by Larsson and Warfringe (3) clearly documented neoplastic evolution of amalgam associated lichenoid lesions.
In the present report we describe the unusual case of a squamous cell carcinoma arisen in the same site where amalgam associated LCL had clinically and histologically healed after restoration replacement.
Case presentation. In 2006 a female patient aged 70 was referred to our department because of a painful non healing lesion in the cheek mucosa. Medical History was negative for systemic diseases.
Oral examination revealed a red, slightly atrophic area in the right cheek, in close contact with amalgam restorations.
Histopathological examination revealed an intense inflammatory infiltrate mainly composed of lymphocytes that locally targeted the basal layer epithelium with evidence of cell vacuolization. Absence of dysplasia was recorded. According to Van der Waal modified criteria (4) a definitive diagnosis of Lichenoid Lesion was carried out. Patch testing revealed positivity to timerosal, a component of amalgam dental fillings.
Lesions regressed entirely one year after amalgam filling replacement.
In 2010, after regular follow-up recalls without clinical relapses, a new biopsy in the same area was taken to confirm histological healing. A significant reduction in the inflammatory infiltrate and no signs of lichenoid aggression to the basal membrane were noticed in the sample. Despite apparent complete cure the patient was still asked to attend regular follow-up.
In 2016 she returned for new burning symptoms in the same area. Oral examination showed a red and white lesion, with areas of ulcerations and topical overgrowth. A new biopsy, taken in two oral sites of the same lesion, revealed well differentiated infiltrating oral squamous cell carcinoma in a context of lichenoid inflammation. The patient was referred to the unit of Oral and maxillofacial surgery to undergo surgical removal of the neoplasia.
Conclusions. In agreement with Larsson and Warfringe the present case seems to support the hypothesis that LCR may occasionally transform in OSCC. Amalgam removal and subsequent clinical or histological healing doesn't seem to play any prophylactic role in the prevention of OSCC. Regular follow-up of patients with clinically healed LCL seem recommendable, as malignant transformation may occur even many years after clinical improvement.

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Case report

Laser and Platelet-Rich Plasma (PRP) as helpful tools in oral medicine and surgery protocols: case reports of Piacenza Hospital

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A growing number of new technologies and tools are today available in the discipline of oral medicine and in surgery practice as well as in different fields of medicine.
Laser was introduced in dentistry many years ago, initially for soft tissues therapeutical approach and later also to treat hard tissue as enamel and dentine but also for bone tissue: precisely because of the properties in terms of affinity for the components of the bone tissue, laser has been introduced as useful tool for Medication-Related Osteonecrosis of the Jaws (MRONJ). Literature about treatment of MRONJ, in fact, describes lasers as useful devices thanks to the ability to perform the removal of necrotic bone; in particular, the tissue vaporisation by Er: YAG laser (wavelength = 2940 nm) is very effective due to its affinity to the water and hydroxyapatite, performing at the same time, due to scattering phenomenon, the biomodulation on both soft and hard tissues, typically realized by different wavelengths in the range of visible and near infrared light.
Platelet-Rich Plasma (PRP) has been proposed for different bone diseases in maxillo-facial surgery and in other medical fields thanks to the presence in PRP of many growth factors as epidermal growth factor (EGF), fibroblast growth factor (FGF), insulin-like growth factor (IGF), keratinocyte growth factor (KGF), platelet-derived growth factor (PDGF), transforming growth factor-β (TGF-β) modulates and prevents excessive recruitment of inflammatory leukocytes and vascular endothelial growth factor (VEGF).
The properties of PRP supported by scientific literature in both oral medicine and other medical fields have suggested introducing in our clinical practice the use of PRP not only in the surgical treatment of MRONJ but also in the medical approach to different soft tissues disease as Oral Lichen Planus (OLP) or Graft Versus Host Disease when the conventional treatments had some contraindications or side effects or the disease was not responding to them.
The aim of this work, realized at the Odontostomatology and Maxillo-Facial Surgery Unit - Special care dentistry of the Hospital of Piacenza, is to describe the approach used for MRONJ treatment with the combination of surgery, laser and PRP and also to show the application of PRP in medical treatment of different oral mucosal diseases in a not invasive and easy protocol that the patient can realize itself at home.

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Case report

Is resective surgery still the best practice for ONJ stage III? A case report of a conservative therapy

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Aim. Osteonecrosis of the jaw (ONJ) is a severe adverse reaction of bisphoshonate (BPs) treatment, that can significantly affect the quality of life of cancer patients (1).
Main aims of the ONJ treatments is to reduce pain, to control infection and to slow the progression of the disease or, when it is achievable, to have a complete healing, eradicating the necrotic bone and, so, the infection. According to AAOMS guidelines, symptomatic patients with stage III disease may require resection and immediate reconstruction with plates or obturator. However, recently, the tendency is to treat by conservative surgery all ONJ stages, expecially when the patients is not suitable for major surgery; because it has been found to provide resolution of acute infection and to offer long-term well-being for patients (2, 3).
We report the management of a case of a mandibular stage III ONJ, treated with conservative surgery.
Materials and methods. A 60-year-old partially edentulous man was referred to our Sector of Oral Medicine (UNIPA), for the presence of bone exposure.
Anamnestically, the patient was affected by a prostatic cancer with bone metastases and reported 2 cycles of zoledronic acid ev. Extraoral examination showed the presence of a painful swelling in the left mandibular body, with a beginning of a fistula. Intraoral examination showed a bone exposure in the third quadrant associated with abscess. By mean of TC beams, the ONJ process involved entirely the mandibular body. The ONJ was classified as stage III of AAOMS staging system.
Applying the PROMaF protocol (http://www.policlinico.pa.it/portal/index.php?option=displaypage&Itemid=264&op=page&SubMenu), the medical therapy provided a pre- and post-operative antibiotic systemic treatment (ampicillin/sulbactam im and metronidazole per os) and the use of chlorexidine mouthwashes and sodium-hyaluronate gel topically.
The surgical protocol expected: 1) anesthesia without adrenaline; 2) full-thickness mucoperiosteal flap; 3) curettage of the necrotic bone, by mean of a piezo-surgery device; 4) irrigation with rifamycin sodium; 5) tension-free suture. Post-operative instructions were given. Follow-ups visit were scheduled at ten days to remove the suture, then at 1,3 and 6 month.
Results. Ten days after, the wound showed a central depression covered by granulation tissues; nevertheless, the complete mucosal healing was achieved before the next control. Recently, tt the last follow-up visit, there were no clinical signs related to ONJ.
Conclusion. Successful treatment is defined as clinical and radiological improvement or as no clinical and radiological signs of ONJ relapse. Preserving the quality of life of cancer patients should be a key point in choosing the surgical approach; for these reason, when conceivable, ONJ stage III may be treated initially with conservative treatment, avoiding more complex procedures for the clinicians and demanding surgery for the patients.

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Case report

In primary oral leishmaniasis a biopsy taken after clinical remission may reveal hidden parasite reservoir: a case report

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Introduction. Human leishmaniasis are a group of infectous diseases caused by several protozoans of the genus Leishmania. Three different clinical forms have been described: cutaneous (CL), mucocutaneous (ML) and visceral leishmaniasis (VL) (1). Primary localized oral leishmaniasis is a rare but possible clinical variant of ML in which only oral cavity is affected. Clinical presentation is extremely pleomorphic and lesions can be easily ignored or misdiagnosed with other oral diseases. Cutaneous and visceral relapses are described by many Authors as secondary complication, probably due to partial treatment efficacy that leads to the persistence of hidden reservoirs of quiescent parasites (2). Remission of oral lesions has been used so far as a sufficient criteria to assess clinical healing but post treatment investigations have never been performed to assess complete cure. We report the case of a female patient living in the north-east of Italy who developed primary localized oral leishmaniasis. Despite clinical resolution of oral lesions, a biopsy collected on normal looking mucosa confirmed incomplete protozoan eradication.

Case report. A 45 year-old Caucasian woman was referred to our attention because of painful, burning oral lesion arisen a year before in the upper lip mucosa. The lesions appeared as whitish patches with a mildly granulated surface and areas of erosions. Histological analysis revealed non-specific chronic inflammatory aspects of non-caseating granulomas. DNA real-time PCR tests performed on biopsy specimen amplified a segment of the small-subunit rRNA gene of Leishmania confirming diagnosis of oral leishmanisis (3). Furthermore, anti-leishmania antibodies specific for L.infantum spp. were detected in serum through ELISA. Lysosomal Amphotericin B (L-AMB) was prescribed for one month. At follow-up complete remission of the erosive and granulated lesion was recorded. In order to confirm leishmanial eradication a new biopsy was scheduled. Unexpectedly, histological and molecular examination revealed parasite persistence. L-AMB was replaced with Mitefosine and Pentamidine for one additional month. However, because of unconfortable side effects, pentamidine was suspended soon after. A third histological investigation at the end of treatment still revealed parasite presence. The patient refused further treatment cycles but she is currently kept under strict clinical observation. Neither oral lesions relapses nor visceral or cutaneous spread have been recorded so far.

Conclusion. The present case is the first to describe results from biopses taken after pharmacological treatment. Despite clinical resolution of oral lesions, histological and molecular evidence of Leishmanial infection could persist in normal looking mucosa. These findings seem to support previous works suggesting that clinical relapses may be connected to residual quiescent parasite foci. Therefore, an additional biopsy is advisable both complete cure assessment and the identification of hidden parasite reservoirs that require strict clinical follow-up.

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Case report

Nasopalatine duct cyst: a case report

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The nasopalatine duct cyst (NPDC) is a developmental, epithelial, non-neoplastic cyst, that is considered to be the most common non-odontogenic cyst of the jaws. It develops solely in the midline anterior maxilla, just behind the central incisors. NPDCs are usually asymptomatic, but a moderate swelling of the anterior palate, rarely painful, can appear, making a differential diagnosis with radicular cyst necessary. A correct diagnosis thus requires radiographic, clinical and histopathologic evaluation.
A rare case of NPDC is reported in a 23-year-old female with an unusual radiographic feature.
The patient presented with a painful swelling of the midline anterior palate. Polycystic ovary syndrome, treated with estroprogestinic therapy, was the only comorbidity found while collecting medical history data.
At clinical evaluation, a fistula on the median line was found with purulent exudation. The patient referred two similar swelling episodes in the previous three weeks, and a less severe episode almost 8 years before. A vitality test on adjacent teeth and a periapical X-ray of 1.1-2.1 were performed. All teeth resulted vital. The X-ray did not show any odontogenic lesion, periodontal ligament enlargement or radiolucency. A previous orthopantomography (performed in 2013) was found negative as well. The fistula was measured using a periodontal probe and resulted of 10 mm. Oral antibiotic therapy with amoxicillin-clavulanate was prescribed in order to treat the acute phase. The CT scan showed a nasopalatine duct enlargement and loss of the palatal cortical continuity. After antibiotic therapy, the fistula was measured once again, showing a significant clinical decrease. Surgical enucleation was performed with palatal access. Controls were made 3 days, 1 and 2 weeks after the surgical session. No post-operative complications were reported. The histopathologic assessment of the surgical specimen revealed a non-keratinizing stratified squamous and columnar epithelium cyst, with evidence of chronic inflammation, presenting a morphological aspect compatible with that of a NPDC.
According to literature, the NPDCs could affect about 1% of the total population. Although many cases are usually seen between the 4th and the 6th decades, it can occur at any age. Symptoms appear when NPDCs are infected, consisting mainly in swelling and drainage. Even though asymptomatic lesions are often discovered during routine radiological examination, both orthopantomography and periapical X-ray may not show any radiolucency nor lesion. In such cases, CT scan can be useful to demonstrate the presence of midline ovoid lesions that can suggest a diagnosis of NPDC, due to its unique location, and allowing differential diagnosis with radicular cysts.
Enucleation is the treatment of choice.

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Case report

Accuvein System for the diagnosis and therapeutical approach of intraoral vascular tumors

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Aim. Intraoral vascular tumors are an heterogeneous group of diseases, so many classification have proposed in the past, and an universally shared classification hasn't been accepted yet. The confusion about treatment approach reflects this lack.
The AccuVein AV400 is a portable instrument, used by many clinicians to locate superficial vessels, so it can be useful in various professional fields (aesthetic, surgical, radiological, cosmetic, cardiological). It provides a map of the vasculature on the surface of the skin, but no attempt has been done as far as oral mucosa is concerned.
The aim of the present case presentation is to report on the application of this device in order to detect and treatment chose of intraoral vascular lesions, to quantify the intraoperative bleeding risk and to check the treatment effectiveness.
Methods. A healthy 82-year-old female patient was referred to our Dental Clinic.
At the intraoral examination, the clinicians noted the presence of a roundish red and blue elevation, sized 5x3 mm, charged to the left retrocommissural area of the oral mucosa.
The lesion had been present for four years, but it had recently grown in size, so the patient complained about recurrent bleeding episodes secondary to masticatory trauma.
Vascular origin of the lesion had been confirmed by compressive contact between a glass slide and the lesion (the lesion disappeared under compression, because there was no more blood supply) and by the use of the AccuVein400 Vein Viewing System®.
This tool exploits infrared rays to detect the hemoglobin in the blood vessels and shows a map of these vessels directly on the skin or on the mucosa overlying the veins.
After local anesthesia with Mepivacaine Hydroclorate 3% without vasoconstrictor, the treatment consisted in a 830 nm diode laser photocoagulation (1.5-2.5W).
Lasers emit a precise beam of concentrated light energy, well-absorbed, depending on the wavelength, by hemoglobin.
The treatment effectiveness was checked immediately after the procedure and at the one-month follow-up visit both with the clinical examination and by the AccuVein400 Vein Viewing System®.
Results. A one-month follow-up visit was performed after the procedure, in order to confirm the treatment success. Both the intraoral clinical examination and the AccuVein system confirmed a complete healing of the lesion and of the vascular component in particular.
No more bleeding episodes had been referred by the patient, who reported an improvement of her masticatory comfort.
Conclusion. The AccuVein400 Vein Viewing System® has been designed to perform more effective venipuncture procedures with less patient discomfort, but it could have various applications. One of them could be the diagnosis, the treatment monitoring and the follow-up of intraoral and extraoral vascular lesions. It can be useful also to discriminate between benign vascular lesions and other neoformations, which can be similar at the clinical examination.
This tool is easy to use, handheld and lightweight, it doesn't require any contact with the patient's skin nor calibration and it also allows the clinicians to check the deepest part of the lesion, which might not be visible at a clinical examination. It could maybe reduce the reoccurence rate.

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Case report

Odontogenic keratocyst behaviour after marsupialization. An histologycal retrospective study

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Background. Odontogenic keratocyst (OK) distinguish for local aggressive behavior and high recurrence rate. Histopathologic features are peculiar: 5 to 10 cells thick epithelium with parakeratosis and palisading of basal cell nuclei. Mitosis and epithelial buds can be simply detectable. Inflammatory infiltrate could induce a misdiagnosis. Satellite cysts are often present close to the wall of the main lesion and their highest frequency accounts to syndromic patient, with association of high recurrence rate. Treatment modalities are still controversial. Depending on extension and structural weakening of jaw bones, proximity to vascular/neurological structures, risk of morbidity, patient compliance and operative feasibility different options exists: En bloc resection (lowest rate of recurrences, 0%); one stage enucleation with adjunctive cryotherapy or Carnoy's solution application (recurrence rate 8-9%); one stage marsupialization (recurrence rate 33%); two stages marsupialization/decompression and cystectomy (recurrence rate 12-13%).

Material and methods. We present a retrospective histological revision of OKs treated with two stage approach (marsupialization and lesion enucleation); three cases, 1 male 29 y.o. and 2 females, 43 and 62 y.o., were selected. Lesion's epithelium was taken during marsupialization surgery. Cysts were weekly irrigated with a 50%/50% solution 0,2% chlorhexidine and hydrogen peroxide 10 vol. 3%. A medicated gauze was used to back-fill the lesion. Daily irrigation was home performed by patients with 0.2% chlorhexidine. Because of subjects' compliance, whole medication period was not standardized; second surgical stage was performed after radiographic control (OPT). Interval between stages ranged from 8 to 16 months (mean 12.67 ± 4.16 months). Minimum follow-up period was 2 years for all cases; radiographic control (OPT) was executed within the 1st and the 2nd year after surgery. Specimens from the two surgical stages were compared; selected microscopic parameters were retrospectively evaluated: type of keratinization (orthokeratosis or parakeratosis), cell layer thickness, inflammation and type of inflammatory infiltrate, mitosis rate and proliferation, fibrosis, peripheral vascular congestion and acanthosis.

Results. No clinical or RX recurrences were observed during follow-up.

While parakeratosis was always present and settled the diagnosis of OK all cases exhibited change into orthokeratosis, in a medication period of 16, 8, 14 months. Mitotic figures were detected in all primary surgical specimens. Conversely, after marsupialization, furthers mitosis were not detected. Inflammation grade was low-moderate, with lymphocyte prevalence in all cyst samples; occasionally, histiocytic infiltrate was visible. After medication, inflammatory pattern was changed, with prevalence of typical chronic inflammation cell such as granulocyte and plasma cells. Fibrosis was the most relevant change, typically detectable in all second stage tissue sample and lacking in first. Acanthosis was initially existent but disappeared entirely after marsupialization. One case (8 months medication) showed satellite cysts after radical enucleation.

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Case report

The use of non trasfusional use blood components on sanitary vulnerable patients in clinical dentistry practice: therapy of oral mucositis related to graft versus host desease

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GVHD (Graft-versus-host-disease) is the major complication of allogeneic hematopoietic stem cell transplant (allo-HCT). Donor-derived cells recognize recipient organs as foreign and mount an immune attack against the patient's own tissues. There are two different types of GVHD, acute (aGVHD) and chronic (cGVHD). Acute GVHD typically occurs between the time of engraftment through 100 days after transplant, while chronic GVHD occurs after 100 days after transplant. cGVHD can follows aGVHD or starts *ex novo*. Incidence of GVHD is highly variable because of many different individual factors, such as age, sex, type of transplant (RIC vc MAC), donor, prophylaxis, CSE source. For aGVHD incidence goes from 20%-40% with HLA matched donors, to 60-80% with MUD transplants. Infections are an important risk factor for aGVHD. Patients after allogenic transplant of CSE stay in room with laminar flow and are subjected to gastrointestinal decontamination with antimicrobial therapy, reducing risk of GVHD.

GvHD syndrome produces drug resistant and non-self-limiting ulcers. We decided to treat those ulcers not only with anti-infiammatory and antibacterial drugs but also with Platelet-Rich-Plasma.

In this work we present the clinical case. This patient was affected by Acute Lymphoid Leukemia and was submitted to Allogenic Transplant.

In patients with these complications after allogeneic transplant of CSE, *restitutio ad integrum* of lesions, especially those deeper ulcers, is hinder by local and systemic factors: immunosuppression, malnutrition and deficit of growth factors essential for tissue regeneration. Long term evaluation must be made regarding identification pre HSCT of local dental conditions as potential etiological factors able to concur to the onset of GVHD ulcers. Their diagnosis and treatment in pre-transplant moment can leads to a decrease of incidence of oral manifestations of GVHD. There are some oral factors, also iatrogenic, that can provoke chronic traumatism on soft tissues and leads to ulcers GHVD related.

These factors are: Non congruent prosthesis, Non congruent dental restorations, Residual roots, Dental elements with invasive caries, Fractured dental elements, Oral habits, Occlusal traumatism on buccal mucosa, tabagism, nutritional deficiency, UV rays.

The development of Major Ulcer on right labial lobe the patient reported difficulty in phoning and swallowing. After 3 applications of Flag-form PRP obtained thanks to VIVOSTAT System we obtained reduction of the acute phase and a complete tissue integrity restitution in only 15 days.

Platelets have a keyrole not only in hemostasis processes but also in tissue regeneration and wound healing. It's known that fibroblasts and mesenchimal cells promote neoangiogenesis and are stimulated by PDGF, VEGF, bFGF, IGF, PF and EGF released by platelets. For this reason in the last decade there was an increasing interest for the use of non transfusional hemocomponents.

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Case report

Oral sarcoidosis: report of two unexpected cases

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Sarcoidosis is a chronic systemic disease of unknown origin that most commonly affects young adults, which affects multiple organs, especially the lungs, lymph nodes, skin and eyes. On the other hand, oral sarcoidosis, defined as lesions that occur in the oral mucosae, is considered to be rare, usually associated with other systemic conditions, with only 70 cases reported in literature, mostly from case reports or minor case series.
The aim of this paper is to describe two unusual cases of sarcoidosis in which the oral mucosa was the first and unique site of involvement.
Case 1. A 43-year-old woman with no significant medical history was referred to the Oral Medicine Unit at CIR Dental School in Turin, for evaluation of persistent swelling of the right cheek and sporadic self-limiting enlargement of the upper and lower left lip.
Ultrasound showed a non-specific inflammation of the buccal mucosa; odontogenic causes were excluded through OPT.
Conventional oral examination (COE) revealed erythematous skin of the right cheek, while its oral counterpart resulted in a positive palpation evidence of a hardened area, covered by normal mucosa.
A clinical suspect of orofacial granulomatosis (OFG) was formulated; thus, a biopsy of the submucosal lesion was performed, showing a non-necrotizing epithelioid cell granuloma suggestive of sarcoidosis.
The patient was referred to an immunologist for evaluation of systemic involvement: chest X-rays showed no lymphadenopathy; serum ACE and Immunoglobulins levels were also in range. An initial therapy with systemic prednisolone was performed followed with methotrexate.
Case 2. A 31-year-old woman with a childhood trauma of the lower lip was referred to our Unit for unusual limited swelling of intraoral mucosa of the lower lip arisen in the previous two months, with a very particular presentation.
Due to the non-specific clinical features, a biopsy was performed: pathological evaluation showed a non-necrotizing epithelioid cell granuloma surrounding crystalloid material, suggestive of sarcoidosis. She was then referred to the Rare Disease Unit of the “San Giovanni Bosco” hospital, where diagnosis was confirmed and treated subsequently with high doses of corticosteroid.
Although oral manifestations of sarcoidosis are uncommon, physicians should be aware that the oral cavity could often be the first site of onset of the disease, especially when intraoral features typical of oro-facial granulomatosis are present.

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Case report

An unusual oral manifestation in a case of haematological disorder related to immunodeficiency

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Between the many hematologic disorders with various aetiologies, coagulopathies are amongst the most important. When a specific vascular damage is present, for a limited period of time, the formation of the haemostatic

coagulum is the first seal of the injured area. An alteration of this regulatory mechanism can lead to excessive formation of clots or excessive bleeding.
We present the case of a 79-year-old female sent to our observation by the dental surgeon since, after 4 days from surgery in zones 4.3 and 3.3, huge exophytic lumps had developed, profoundly bleeding when touched. Examination revealed the presence of irregular globular lumps, brownish in color and of tensile-elastic consistency, that surrounded almost the entire lower arch, incorporating all the sutures. The patient's medical history reported that she was currently undergoing antihypertensive treatment and substitution therapy for hypothyroidism; previously, patient also reported a methotrexate treatment for rheumatoid arthritis, currently under remission for the last 6 years. Ad admission, the clots were removed, together with the sutures, to prevent tissue compression and formation of abnormal collateral bloodstream vessels. Haemostasis control was carried out with in situ application of tranexamic acid; urgent blood investigations were required, the results showing high neutropenia with leukopenia (WBC 2610/mmc, N 7%). Antibiotic support therapy was established and the patient was sent to the haematologist with a diagnostic question of possible oncological disease.
In the next week, the oral situation progressively improved and other investigations were carried out in order to ascertain the cause of neutropenia and of the hypercoagulation episode, also in relation to the previous rheumatic disease [liver function tests, abdominal ultrasound, chest x-ray, bone marrow biopsy, lupus anticoagulant (LA), ANA, ENA, Ab-anticitrulline, von Willebrand antigen, coagulant fibrinogen]. Bone marrow histological examination found a reduction in the red series compatible with the age of the patient, an excess of lymphocytes (15-20% mainly T) and reactive plasma cells (8%), slight megacaryocytic hyperplasia, and no immunophenotypic alteration on the examined medulla populations. Positivity of ANA (1/160), Ab-anticitrulline, and an increase in erythrocyte sedimentation rate (at 120) were observed. The rheumatologist, considering the re-activation of rheumatoid arthritis and a worsening of the articular clinical picture, decided to establish a new treatment with prednisolone (10 mg daily). After 3 months of therapy, neutropenia clearly improved, agreeing with the haematologist that the haematological disorders found after oral surgery were presumably related to the patient's basic immunodeficiency.
The immune system and the coagulation system seem to have a common evolutionary origin, this could explain the exchanges between inflammatory cytokines and coagulation factors; When activated, cytokines can induce several pro-thrombotic conditions such as endothelial dysfunction, tissue factor expression (TF), coagulation activation, and fibrinolysis inhibition. Rheumatoid arthritis, as well as other autoimmune diseases, can be considered a pro-thrombotic state, therefore becoming a risk factor for cardiovascular disease and thromboembolic events. In this case, oral surgery happened to be the sentinel event highlighting haematological underlying disorders which, if not timely treated, could have been potentially life-threatening.

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Case report

Oral manifestations and Long-Term follow-up in a case of Cowden syndrome

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Cowden syndrome is a rare autosomal dominant hereditary disease, with, in 85% of the cases, a mutation in PTEN gene on chromosome 10. PTEN gene codified for a protein that have a tumor suppressor function. In addition, to conferring increase cancer risk, Cowden syndrome predisposed individuals to developing hamartomatous growths in many area of the body, in particular skin and oral mucosa. Other common disease of the syndrome are thyroid abnormalities, gastro-intestinal lesions, macrocephaly and genitourinary abnormalities. The most frequent malignancies are adenocarcinoma of breast, thyroid cancer, endometrial cancer and renal cell carcinoma. Oral lesions include multiple papules on gingiva, labial mucosa and on tongue, giving a cobblestone appea-

rance. According to literature, oral manifestations do not have any potentially malignant evolution. Facial skin features are multiple trichilemmomas and acral keratosis.
We described a case of Cowden syndrome followed since 1993 in our university clinic, with 24 years of follow-up, giving particular attention to the genetic diagnosis, made in 2010. M.B. male, 22-year-old baseline, arrived in our department reporting a long history of removal interventions of fibromixoma and angiomas from legs and feet by the age of 8. The patient presented papules and excrescences in gingiva and right buccal mucosa. Capillary and cavernous angioma and fibroepitelial excrescence were the results of the first histological analysis. In 1995, a biopsy did on gingiva of 2.1-2.2 resulted in chronic iperplastic gingivitis with plasmacellular aspects.
Over the years, several biopsies have been performed for cosmetic purposes, with histological non-specific results: capillary angioma, fibroepithelial excretion, iperparakeratosis and hyperplasia of epithelium. Despite the removals, the lesions always had a tendency to recur. At extra-oral level, the patient also manifested macrocephaly and aural keratoses on the skin of the face. Although the lesions had a syndrome appearance, no diagnosis was ever made. In 2009, at the age of 38, a diagnosis of chormophobic kidney cancer was done.
The appearance of this tumor in young age raised doubts about Cowden's syndrome, confirmed in 2010 with the genetic test for mutation of the PTEN gene. Currently, he continues the follow-up annually to our university clinic.
Cowden syndrome is a disease that is often under diagnosed, especially before the introduction of genetic tests.
The clinical criteria for suspecting Cowden's syndrome are divided into pathognomonic (Lhermitte-duclos disease, mucocutaneous lesion), major (macrocephaly, breast, thyroid cancer, endometriosis) and minor (including genitourinary neoplasia).
Diagnosis needs 1 pathognomonic criteria, or 2 major criteria, or 1 major and 3 minor, or 4 minor, and they must be confirmed by searching alteration of PTEN.

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Case report

Professional oral hygiene in combination with sodium iodide associated to salicylic acid in two patients affected by gingival pemphigus vulgaris

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Desquamative gingivitis (DG) is not a specific disorder itself; it simply represents the gingival manifestation associated with some heterogeneous mucocutaneous disorders, such as oral lichen planus, mucous membrane pemphigoid, pemphigus vulgaris and few others. Oral mucosal lesions of pemphigus vulgaris (PV) are known to show more treatment refractoriness. Epithelial desquamation, erythema and erosive and/or vesciculo-bullous lesions on the gingiva usually characterize it. Usually of unknown aetiology, even if this condition has been reported as non-plaque induced, effective dento-gingival plaque control could sometimes resolve the gingival inflammation. Recently, we have reported that efficient plaque control could have been helpful in treating PV. The SISA is a rather novel formulation, realized as a salsobromoiodic solution containing salicylic acid and magnesium bisphosphate, making a strong bactericide and fungicide action applicable on human skin and mucosae for tissues reparation and re-epithelization.
Aim of this study was to evaluate the clinical efficiency of an oral hygiene protocol in patients affected by PV in combination with a solution of sodium iodide associated to salicylic acid (SISA).
Two patients (a 52-year-old female and a 70-year-old female), affected by PV, were treated with conventional topical therapies but with only partial and transient response. They later received non-surgical periodontal therapy, including oral hygiene instructions, supra- and sub-gingival scaling as required. Oral hygiene instructions were given by the same experienced dental hygienist, who also provided thorough supra-gingival scaling with elimination of all deposits, over three visits, as a separate complete mouth scaling, and completion within 3 weeks. Du-

ring each visit subjects were instructed about proper oral hygiene maintenance at home. Such instructions were reinforced at each visit and were personalised when necessary. The SISA was used at the end of each of the 3 sessions performed: two cotton gauzes were impregnated with 5 ml of the solution and each of them was applied for 15 minutes for the upper and lower jaw; after five minutes the same procedure was applied for other 15 minutes. Patients were advised not to swallow the medication, and to avoid eating and drinking for at least 3 hours after the treatment.
We evaluated clinical outcome variables, including valuation for full mouth plaque (FMPS) and bleeding (FMBS) scores, probing depth, assessment of subjective pain through Visual Analogic Scale (VAS), patient related outcome and clinical gingival signs. We showed that topical application of SISA and professional oral hygiene procedures are connected with significant improvement of gums' status and decrease of related pain.
The positive clinical results obtained with a standard professional oral hygiene and non-surgical periodontal protocol could be used as a basis of recommending this such as complementary line therapeutic intervention, especially in patients with pure gingival involvement, during any other medical treatment. This approach can decrease gingival inflammation and related pain, helps affected patients in maintaining a good oral hygiene, and also quickens a clinical improvement of the erosive lesions.

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Case report

Painful no-defined radiolucent lesion of the mandible: importance of a correct differential diagnosis

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Introduction. Some patients experience persistent oral pain without having apparent dental problems, such as decays or anything else that could explain their pain. These patients often consult several dentists, looking for a solution, undergoing to several therapies, such as root canal treatments, dental extractions and other procedures without any relief. Since, head and neck regions may often be affected by inflammatory, neoplastic, immune, infectious, or degenerative diseases, sometimes, the diagnosis of oro-facial pain is difficult to perform. In fact, pain is a subjective symptom based on sensation referred by patients and on the clinical evaluation of several characteristics, such as the area, the time trend, the irradiation and the possible regression after a therapy. The aim of this case report is to underline the importance of considering the oral pain, not only strictly associated to dental problems but also like a possible evidence of more serious pathologies.
Case report. A 52-year-old Caucasian female was referred by her private practitioner to the Department of Oral and Maxillofacial Sciences of "Sapienza", University of Rome with a history of pain at left mandible. Medical and family histories were not significant. Complete case history revealed that pain started 6 months ago, with a gradual increase up to the actual situation in which it was no longer tolerable. Furthermore, in the last months, the patient received, by her private dentist, the root canal therapies of teeth 34, 35 and 36 for suspected endodontic problems but, after these treatments, the pain was not solved. On extra-oral examination, no palpable lymphnodes in the head and neck region, were noticed. Intra-oral examination revealed a small non-tender swelling, mimicking a dental abscess adjacent the teeth 34, 35 and 36, with grade 1 of mobility. An Orthopantomography (OPT) and Computed Tomography (CT) were prescribed and a combined therapy of antibiotic and painkillers was administered. Both OPT and CT revealed poorly defined radiolucent lesion at the periapical region of teeth 35, 36 and, since after one week, at follow-up visit, teeth mobility dramatically worsened, a surgical explorative flap was performed. Under local anesthesia, a flap was opened, the mobile teeth were extracted and a mixed bone and fibrous tissue sample was sent to the anatomo-pathologist for the histological evaluation. Histologically, a fibrous connective tumor tissue with oval-shaped and fused elements was observed; the tumor cells showed

pleomorphic nuclei and abundant eosinophilic cytoplasm. Immunohistochemistry was positive for vimentin; while it was negative for CK-MNF116, EMA, Actin ML, Desmin, CD68, BCL-2, CD31, CD34, CD99 and S100. A diagnosis of aggressive mesenchymal tumor was performed.

Conclusion. Clinicians cannot ignore the features of oral pain, especially when it is persisting or worsening and accompanied by other clinical signs and symptoms, as facial swelling or difficulty in mouth opening, so a careful differential diagnosis must be given in order to avoid wrong and disabling treatments. The case reported shows the need for improved education of dentist regarding orofacial pain, considering oral cavity as part of a wider and more complex system. If the general practitioner does not have the appropriate skills to solve the problem, it is advisable to refer patient to a specialist in oral pathology and medicine.

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Case report

Developing a European-wide smoking cessation e-learning tool for healthcare professionals

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Smoking is one of the leading preventable causes of premature death and preventable disease. In Europe, 29% of individuals over 15 years of age identify as smokers. Some countries within Europe have alarmingly high rates of tobacco use; for example, 40% of Greek adults smoke regularly. Smoking and chewing tobacco are directly related to 650,000 mortalities each year in Europe, roughly 14% of all deaths.

We aim to provide an e-learning tool, promoting smoking cession advice, accessible to EU healthcare professionals. The resource will be translated into 8 languages to increase the skillset of users and it will provide an online certificate for those that complete an online assessment.

The final aim of this work is to reduce healthcare cost and increase length and quality of life for EU residents.

An online resource has been chosen because modern education faces challenges through rapidly advancing knowledge base & methods of distribution and because there are evidence to suggest that educational outcomes are improved when utilising an interactive resource 5, without considering the fact that the material is an 'open educational resource' (OER), for maximise the access.

Furthermore a website is comparatively cheap and easy to create and update, so small financial outlay can leading to a comparatively large economic benefit.

Several methods have been conceived to increase the knowledge of the resource, like the development of smoking cessation document with current policy for every country, the dissemination of e-learning tool at conferences via poster and oral presentations, the publication of peer-reviewed documents in widely accessed journals, the provision of resource to universities or with a one day presentation in each partner country for undergraduates, postgraduates, dental and healthcare academics.

The predicted outcomes should have an educational impact, with the implementable smoking cessation advice for 8 different EU countries, an economic impact; indeed this is a potential method for reduced healthcare cost and economic gain through reduced loss of working hours, an EU Interrelation impact, to consolidate and establish new partnerships for future research alongside sharing opinions and education strategy and an health impact, because the quitting at 25 to 34, 35 to 44, or 45 to 54 years of age gained around 10, 9, and 6 years of life respectively when compared with smokers.

These outcomes will be assessed in three ways: by the external evaluators of the project, from feedback from healthcare practitioners regarding the website content and from survey practitioners to ascertain if the resource has caused a change in practice.

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Case report

Management of multiple oral vascular malformation with diode laser: case report

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The International Society for the Study of Vascular Anomalies (ISSVA) divides vascular lesions into: vascular tumors and vascular malformations.
Vascular malformations, resulting from alteration of vascular development between the 4th and 6th weeks of gestation, present stable endothelial turnover and never regress. Vascular malformations are classified according to the aberrant vessel that compose them in lymphatic, capillary, venous and arterial malformations. Frequently different vascular tissues may be affected by these developmental disturbances so mixed type of lesions such as artero-venous or venous-lymphatic malformations can be observed.
Many treatments are available for vascular lesions depending on type, localization, size and extent of lesions. Laser, thanks to its photocoagulation effects represents a successful tool in their management. Laser treatments of vascular lesions can be distinguished in 2 modalities:" no-contact" (Transmucosal Thermophotocoagulation) and "contact" treatments (Excisional Biopsy and Intralesional Photocoagulation). The aim of this case report is to describe the different laser techniques applied in a patient with multiple vascular malformations. A 55-year-old Caucasian male, former smoker, was referred by his private practitioner to the Department of Oral and Maxillofacial Sciences of "Sapienza", University of Rome for the presence of several vascular lesions in the oral cavity. Medical and family histories were not significant. Complete case history revealed that lesions appeared at young age and increased gradually. At intra-oral examination: 4 lesions on left buccal mucosa, 1 lesion on right buccal mucosa, 2 on tongue dorsum, 2 on left tongue side, 2 on right tongue side, 1 on tongue tip, 3 on the lower lip with a dimensions varying from 0.5 cm to 2 cm, of bluish color and soft consistency, were noticed. An eco-color doppler and Magnetic Resonance Imaging were prescribed, confirming in every case the diagnosis of arterio-venous malformations. The lesions were treated with a diode laser 980 nm, (Raffaello, DMT, Lissone MB, Italy) in continuous mode, with power ranging between 3-5 Watt. Treatments were performed in multiple sessions, under local anesthesia without epinephrine, using different techniques: photo-thermocoagulation for smaller and more superficial lesions and intralesional technique for larger and deeper ones. In the post-operative period a compound in gel of ialuronic acid plus aminoacids was administered to guarantee better healing. Furthermore, patient did not report any discomfort in no case. At follow-up visits at 7 days, 1 month and 3-6 months the healing was complete for some lesions and partial in other ones. According to Literature, laser therapy is an effective treatment for vascular malformations due to the ability to reduced bleeding risk and limited post-operative discomfort. Compartmentalization and serial steps could be useful in laser treatment of oral vascular malformations, in order to prevent excessive thermal damage of surrounding tissue and guarantee a rapid wound healing and a better post-operative period.

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Case report

Peri-implant giant cell granuloma treated with diode laser surgery: a case report

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The frequent use of dental implants in prosthodontic dentistry has induced an increasing number of peri-implant diseases. Even if most of them are peri-mucositis and peri-implantitis, a small number of patients can show other soft tissue complications; one of these is the peri-implant giant cell granuloma (PGCG).
We report the case of a 52-year-old Caucasian female, with good general health, presenting with a diffuse swelling around two dental implants of the lower left mandible (3.5-3.6), in the lingual side, arose in 3 months. The implants have been originally placed 2 years before.
The radiography showed minimum signs of bone alterations. The ceramic crowns were removed and a first surgical treatment in local anesthesia was performed, without involving the surface of the implant; the histological exam revealed an ulcerated stratified squamous epithelium with blood vessel, a focal osseous metaplasia and a proliferation of multinucleated giant cell within the stroma. The diagnosis was that of PGCG.
The relapse of the lesion was quite fast and, after 4 months, a new surgical intervention was performed. At this time, a surgical treatment of the lesion and of the implant surface was performed using a diode laser (DMT Raffaello®, 645-980nm with power setting of 3.5w). The new histological exam confirmed the previous diagnosis.
The lesion finally healed, without relapse. The result remained stable during the follow-up period at 6, 12 and 18 months.
The pathogenesis of peri-implantitis and peri-mucositis is strictly related to the dental plaque. Otherwise, the pathogenesis of PGCG is not clear; some hypotheses are linked to some local irritation (e.g., foreign bodies as cement, calculus or a food residuum). In previous studies, an increased frequency in women was reported, suggesting a hormonal role in the pathogenesis. The most common location was the posterior side of the mandible; probably the difficulties of the at home oral hygiene procedures can be a risk factor.
Because the differential diagnosis could include oral squamous cell carcinoma, other malignancies or metastasis, the histological exam is fundamental.
To date, the treatment of PGCG does not have a definitive consensus; the relapse of the disease is quite common after the traditional surgery, and could often require the removal of related implant. Our experience suggests that diode laser can be useful for the conservative management of these conditions.

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Case report

A new correlation between burning mouth syndrome and drugs

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Burning mouth syndrome is a common disorder that frequently affects women in the 5th-7th decade. It is characterized by persisting painful symptoms mainly involving the anterior two-thirds of the tongue. For several years it has been attributed to psychological causes. We examined 300 patients: 150 with clinically definite burning mouth syndrome for at least 6 months. Of these 150 patients with BMS, 120 were female and 30 males (ratio 4:1). The control group was made of 150 other patients (120 F/30 M) without symptoms of BMS and clinically not affected by burning mouth syndrome. All the patients were visited at Ospedale di Circolo di Varese, so, they are all patients selected from a hospital database. The patients chosen in both group were aged between 45 and 85 years old. The average age was 61 years old. We investigated the correlation between the pathology and several classes of drugs which were taken by patients in order to treat other disease. We have not included in our study: patients with burning mouth not related to BMS, patients with other oral pathology (for example: Oral Lichen Planus), patients younger than 45 years old and older than 85 years old, patients not visited at the hospital amd patients who not assumed drugs but were aged between 45 and 85 were included in our study. We classified each drug taken by patients in a familiar drug group (for example: Rivotril was classified as a anxiolytic, so it was put in the anxiolytic group). Then for each drugs group we looked for the difference between the 2 main groups. Indeed we had the total number of patients that assume a certain class group both from BMS and control group. We compared the results of each familiar drug cluster between the 2 main groups (BMS and control) and applied the chi-squared test. The outcomes with a chi-squared test under 0.05 were statistically significant. Only the following kind of drugs had a statistically significant value: ANTICOAGULANTS, ANXIOLYTICS, STEROIDS, INSULIN and ANTICONVULSANTS DRUGS. Our study demonstrates that burning mouth syndrome probably has a correlation with some classes of drugs such as anticoagulants, anxiolytics, insulin, steroids and anticonvulsants drugs. Insulin, anticoagulants, anticonvulsants drugs and steroids seem to have a role in a sort of prevention from BMS. We think, indeed, that people who assume such drugs have a more important disease than burning mouth syndrome. They don't have time to think about a less important sickness like BMS and maybe this is the reason why people assuming anxiolytics have a more probability to have BMS than other patients. This study confirms that psychological factors do play an important role in the burning mouth syndrome.

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Case report

Oral melanoma: a case report. Literature review

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Aims. Melanoma, mostly affecting the skin, is a not frequent malignant tumor arising from melanocytic cells; mucosal melanomas, along with ocular and neurological varieties, represent 4-7% of all primary melanomas, with an incidence rate of 2.3 per million; on the other hand they are generally very aggressive neoplasms. The clinical

presentation of this lesion is extremely different, being pigmented or even pigment-free, esophytic or flat. Biopsy is mandatory fir a correct diagnosis, mostly in non pigmented lesions.
Methods. A 54-year-old male, Caucasian, reported with a dark spot that broaden for about 1 cm on the palatal slope, close to the upper right first molar. The lesion, light brown and grayish, with well defined borders, presented as a smooth, slightly depressed area, not sore and not interfering with chewing movements; no ulceration or palpable lymph nodes were detected. The tooth involved was firm and vital, whereas the second molar and the second premolar were both extracted years before. The rest of the mucosa was pink and had no suspected lesions, except for some tiny melanotic palatal patches.
Results and discussion. An incisional biopsy was performed and the histopathology reported epithelial acantosis and hyperkeratosis with numerous atypical dendritic melanocytes (anti-HMB-45 positive) at predominantly junctional location, but also intraepithelial, without infiltration of the subepithelial connective tissue. These features represent a case of melanoma *in situ,* therefore a complete removal of the lesion is needed, along with the histopathology of the entire block. The patient was therefore invited to attend Maxillo Facial Surgery for planning a wider surgery, as suggest by the current guidelines.
Conclusions. Considering that factors used in cutaneous melanomas (Breslow's criteria) do not entirely apply to oral melanomas, the absence of the vertical growth phase, ulceration and vascular invasion, all make the prognosis of this lesion less poorer.

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Case report

Is differential diagnosis of squamous cell carcinoma and keratoacanthoma of the lower lip so complex? A case of keratoacanthoma surgically managed

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Background. Keratoacanthoma (KA) is a benign epithelial tumor normally presenting as a solitary and proliferating dome-shaped keratin-filled crater. It often occurs on sun-exposed sites in light-skinned persons of middle age or older. It is considered the prototype of cutaneous pseudo-malignancies because it is a rapidly growing tumor with histologic pattern resembling squamous cell carcinoma (SCC). This premalignant lesion in all probabilities arises from ectopic sebaceous glands and not hair infundibulum. It's often found in the head and neck area, including the lip. Management is controversial: some Authors suggest surgical removal while others prefer monitoring to allow for spontaneous resolution. Nevertheless, the rate of malignant transformation of KA is around 32.6%, thus supporting an active treatment.
Case summary. A 56-year-old male patient came to our Oral Medicine and Oral Oncology Clinic in April 2017, because of the onset of an exophytic lesion on the lower right vermilion. He was smoking more than 20 cigarettes/day and was drinking beer during every meal. Clinical examination revealed an ulcerate and nodular growth measuring approximately 10x5 mm on the lower lip, with no report of local trauma. An incisional biopsy was performed in order to rule out the presence of dysplasia or carcinoma. Histopathological report just showed the presence of keratosis with lichenoid infiltrate and verrucous hyperplasia. A surgical excision was scheduled. The lesion in the following weeks did not regress, indeed it worsened structuring like a horn. The histopathological report was consistent with keratoacanthoma showing a keratinic esophytic lesion with hyperkeratotic, hyperplastic epithelium with untouched adipose tissue. After surgery a complete histolopathological healing was achieved.
Conclusion. KA is a common benign cutaneous lesion occasionally involving the mucous membrane. The clinical appearance of KA could resemble SCC, so that incisional biopsy is mandatory to clarify the diagnosis.

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Case report

Large peripheral giant cell granuloma of the mandible: a case report

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Peripheral giant cell granuloma (PGCG), or the so-called "giant cell epulis", is an oral giant cell lesion appearing as a soft tissue extra-osseous purplish-red nodule consisting of multinucleated giant cells in a background of mononuclear stromal cells and extravasated red blood cells.
This lesion probably does not represent a true neoplasm, but rather may be reactive in nature and usually does not measure more than 2 cm in diameter. The initiating stimulus has been believed to be due to local irritation or trauma, but the cause is not certainly known.
Because the clinical appearance of the PGCG is similar to those of several other entities, including the peripheral ossifying fibroma, peripheral odontogenic fibroma, pyogenic granuloma and oral manifestations of lymphoproliferative disorders, a definite diagnosis through histopathologic evaluation is required.
We report a case of PGCG arising at the mandibular region in a 74-year-old female patient, who was referred to our attention complaining progressive painless swelling in the right lower jaw for 3 months. The patient was systemically healthy, as revealed by standard haematological tests and blood chemistries.
On intraoral examination, a single swelling firm in consistency, with a purplish-red lobulated surface was seen on the mucosa in the right mandibular region. The swelling measured about 4,5×2 cm and was in relation to teeth 4.1, 4.2, 4.3 and 4.4, all affected by severe periodontitis. Panoramic radiography showed bone resorption nearly related to the lesion.
We performed a preliminary incisional biopsy of the lesion. The histopathologic evaluation revealed a nodular proliferation of cellular mesenchymal tissue with abundant multinucleated giant cells dispersed throughout and surfaced by stratified squamous epithelium, as typically shown in PGCG.
Afterwards the lesion was completely excised and the debridement of underlying bone was performed, the involved teeth were extracted and there was no residual or recurrent swelling or bony defect apparent in the area of biopsy after a follow-up period of 12 months.
PGCG may show a rapid painless growth and reach a considerable size, greater than 4 cm in diameter. Biopsy is mandatory to differentiate this lesion from other entities with similar clinical appearance, including serious disease like lymphoproliferative disorders.
A careful surgical management of this lesion reduces the risk of relapse.

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Case report

Maxillary keratocystic odontogenic tumor with an unusual onset. A case report

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Introduction. Odontogenic cysts and tumors constitute an important aspect of oral and maxillofacial pathology. Odontogenic cyst are encountered relatively commonly in dental practice, otherwise odontogenic tumors are quite rare lesion. The keratocystic odontogenic tumor (KCOT) is a benign intraosseous neoplasm representing around 4-12% of odontogenic cysts. KCOT arises from cell rest of the dental lamina. The most common location is in the posterior mandibular area, specifically in the body and mandibular ramus (60%). KCOT has also a higher frequency in the molar area in the jaw with 21%, on the other hand it is uncommon in the anterior maxilla and chin area (8.5 and 7%, respectively). Odontogenic Keratocyst of the anterior midline maxillary region can mimic nasopalatine duct cysts. KCOT may be found in patients who range in age from infacy to old age, but about 60% of all cases are diagnosed in people between 10 and 40 years of age. There is a slight male predilection. KCOT has a growth's trend in an antero-posterior direction without causing obvious bone expansion. Radiographically, odontogenic keratocyst presents two forms: unilocular with well-developed sclerotic borders and multilocular. Multiple KCOT usually occur as one of the findings in Gorlin–Goltz syndrome with other features such as skin carcinomas and rib, eye, and neurologic abnormalities. The histological examination is characterized by a thin squamous epithelial layer. Basal layer cells are usually organised as a palisade which are often hypercromatic. Others importants histological aspects are the presence of a constant layer of stratified plain parakeratinized epithelium and also a fibrous walls of cells that could be relatively thin and usually without inflammatory cell infiltrates.
Case report. A 23-year-old chinese girl with a negative past medical history came to the department of Dentistry and Maxillo-Facial surgery of Martini Hospital, on February 2017 with a chief complaint of an asymptomatic swelling of the paramedian upper maxilla that appeared three weeks before. At the obiective examination was highlighted a painless hard swelling of 2 cm of diameter with an overlaying normocromic and normotrophic mucosa between the two central upper incisors, they both resulted alive at the cryotest. Orthopantomography and Computed tomography were performed. From the radiographic evaluation has been highlighted a unilocular radiotraspharency well demarcated with a maximum diameter of 2 cm and also 2.2 cm in the Computed Axial Tomography exam. The treatment was the total resection and bone curettage. The lesion included a yellowish caseosus material The histological examination showed the presence of a covering squamous epithelum with parakeratosis, the basal epithelial layer was composed by a palisaded layer of cuboidal/columnar cell with polarity inversion of nuclei, compatible with the diagnosis of KCOT.
In the six months of follow-up, there wasn't any recurrence, and the radiographic examination displayed a partial re-ossification of the area. The follow-up for this lesion considers an annual control for the next 5 years.
Conclusion. KCOT are locally aggressive lesions, with a high range of recurrence, for these reasons a early diagnosis is mandatory in order to indicate the optimal treatment to slow down evolution and prevent complications. The peculiarity of our case has to be associate with the unusual localization and with the successful conservative treatment and prevention of the vitality of the incisors in a young patient.

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Case report

Combined use of two different dermal fillers in the treatment of related HIV facial lipoatrophy

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The facial HIV-related lipo-atrophy (HIV FLA) is a clinical corollary of HIV lipodystrophy syndrome. The literature reported several techniques used for treatment of this disfiguring condition and make use of many permanent, semipermanent and absorbable dermic fillers. Each therapeutic option manifests different strengths and weaknesses and currently a valid operating protocol in most cases is not yet available. Furthermore, the selection of the operating technique and the use of different fillers, remains strongly conditioned by the operator's clinical skills.
A different approach to the treatment of HIV FLA is described and evaluated after a six month follow-up. The technique provides for the synchronous use of two different dermal fillers: Calcium hydroxyapatite (CaHa) and Hyaluronic acid (HA), to take advantage of their different thixotropic and rheological properties.
Case Presentation. A 53 year-old male patient, HIV+ who has undergone HAART therapy for more than 10 years, consulted our clinic for a definitive diagnostic framing and for treating a 3-stage facial lipoatrophy of the Carruthers Lipoatrophy severity scale (CLSS). We decide to proceed after the evaluation of the clinical stability of the underlying pathology, as well as the general health conditions and the psychological evaluation of the emotional impact due to social stigma that strongly affect the quality of life of the patient (QoL). A careful pre therapeutic evaluation about what type of filling materials could be the better choice, have driven us to select a combined procedure that could guarantee for the patient a safe procedure, to obtain the maximum in terms of durability and stability, ensuring a good aesthetic result without forcing it to repeat treatment sessions in order to minimize clinical discomfort.
The procedure was carried out using a microcanula (25 G-70 mm), after a locoregional anesthetic blockage, of buccal and mandibular braches, whit 2% lidocaine, for infiltrations of CaHa (1.5 ml half-face) inoculated over the periostal area with "reticular technique" to reintegrate deep and localized volume losses while HA infiltrations (1 ml half face) were performed with needle (27 G-3 mm) whit "fancy technique" at medium/surface dermal level to improve surface skin texture. Treatment was performed under systemic antibiotic therapy (amoxicillin/clavulanate). The first follow-up occurred after 2 weeks; a retouching of the cutaneos surface texture was performed using 1 ml of HA.
Clinical controls with a six month duration, confirmed the achievement of grade 0 of the CLCC, the stability of the obtained result, the absence of complications and a reported overall improvement in QoL.
The technique described appears to be safe and very effective and may be used in other fields of Oral Medicine such as atrophic and dystrophic conditions related to local soft tissue infections with necrosis of subcutaneus tissues, post-surgical minus in connective areas or iatrogenic (intralesional steroid therapy).

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Case report

Usual primary intraosseous B small cell lymphoma of the jaw. A case report

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Introduction. Malignant lymphomas represent approximately 5% of all malignant neoplasm of the head and neck area.
This heterogeneous group of tumours is classically divided in two subgroups, Hodgkin's lymphomas (HL) and Non-Hodgkin's lymphomas (NHL), depending on the presence or absence of Reed-Stenberg cells.
Non-Hodgkin's lymphoma is the most frequent type of haematological malignancy of the head and neck, representing about 75% of lymphomas in this area. It's well known that some variants of NHL are more common that others in the oral and maxillofacial region. The haematological disorders with an highest prevalence are: B-lymphoblastic leukaemia/lymphoma, chronic lymphocytic leukaemia/small lymphocytic lymphoma, extranodal marginal-zone B-cell lymphoma of MALT, follicular lymphoma, mantle cell lymphoma, diffuse large B-cell lymphoma and Burkitt's Lymphoma/leukaemia. The most frequent T-cell and NK-cell NHL is the extranodal NK/T cell lymphoma, nasal type.
Extranodal NHL represent 20-30% of all the NHL. Among the NHL that occur in the oral cavity 10%-26% arise in the maxilla and mandible. The upper maxilla (11%) and the gum (7%) are involved more frequently by NHL. Isolated mandibular NHL accounts for only 0.6% of all the NHL.
Case Report. A 44-year-old female smoker without any significant anamnestic report, was admitted to our Oral Medicine and Oral Oncology Clinic on September 2015 with a chief complaint of swelling and pain at the left mandible, with a sense of numbness of the left inferior lip. About 6 months before, the patient underwent extraction of the first inferior left molar, because of a periodontal abscess, with an inadequate healing. A revision surgery of the alveolus with histological sampling was performed resulting in a diagnosis of osteitis. After the surgical revision the patient disclosed intermittent pain and swelling in the area of the tooth extraction with constant paraesthesia of the left part of the lower lip. On examination the left mandible showed a soft swelling with an overlying ulcerated mucosa. A CT scan showed a non homogeneous structure of the alveolar bone with a lithic aspect in the area of the extraction. An incisional biopsy was performed. The haematoxylin and eosin-stained sections revealed the presence of an ulcer of the oral mucosa in relation to sporadic bone fragments with inflammatory aspects of bone marrow, compatible with osteitis. The surgical wound completed the healing but in January 2017 the swelling reappeared, three more biopsies were performed revealing a status of chronic periostitis. A more aggressive surgical approach was carried out. The result of the histological examination showed a lymphoma of B small lymphocytes with aspects of secretive differentiation of kappa chains. Haematological examination, total body CT and bone marrow biopsy were performed. CT and bone marrow biopsy ruled out a systemic involvement. A PET was required, and the only site strongly enhanced was the mandible, consequently she was addressed to the local radiotherapy.
Conclusion. In contrast to the vast majority of NHL involving the jaws, our case of NHL presented with a generalized sclerotic radiographic appearance and pain which most often are related to chronic inflammation. Primary extranodal NHLs of the oral cavity are rare lesions. Early diagnosis is essential to achieve optimal treatment results, nevertheless deep sampling is mandatory to obtain adequate tissue for diagnosis.

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Case report

Oral mucosal hyperpigmentation of the hard palate associated with Imatinib

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Oral mucosal hyperpigmentation is a common clinical finding presenting with a focal or diffuse pattern, which may be caused by exogenous or endogenous factors. Among the causes of diffuse melanotic pigmentation, there is the use of certain drugs, such as Imatinib.
Imatinib is a tyrosine kinase inhibitor used in the treatment of certain cancers, primarily chronic myeloid leukemia. Dermatologic side effects are quite common, with superficial edema, rash, and skin hyperpigmentation. Conversely, intraoral side effects are rare, with few cases of hyperpigmentation reported in literature. The aim of this study is to present an unusual case of mucosal hyperpigmentation of the hard palate due to administration of Imatinib.
A 66-year-old Caucasian man was referred to dentistry clinic of Marche Polytechnic University by his general dental practitioner, for the evaluation of a painless oral mucosal pigmentation localized in the hard palate.
His medical history was significant for chronic myeloid leukemia, diagnosed 4 years before. Regarding pharmacological anamnesis, the patients has been treated with Imatinib 400 mg daily for 4 years. Other drugs included ibuprofen and a multivitamin complex.
Oral examination showed a diffuse bluish pigmentation of the hard palate, with several inflamed minor salivary glands in the same area. Mucosal appearance, except for the color, is unchanged. Furthermore, no other areas of hyperpigmentation on the oral mucosa, skin, or fingernails were found. An incisional biopsy was performed, and histological examination showed accumulation of fine, brown, spherical bodies measuring 2-4 μm located within cells of the lamina propria.
Pigmentation of the oral mucosa can indicate a lot of lesions or conditions, including racial pigmentation, melanotic macules, melanoma, blue nevus and systemic disorders. Furthermore, this condition is associated with several drugs and endogenous/exogenous pigments. There are few case reports in literature related to hyperpigmentation of oral mucosa caused by Imatinib. The molecular basis of cutaneous and mucosal changes associated with the use of Imatinib is unknown, but it has been suggested an excessive melanin deposition through the stimulation of C-kit, leading to the activation of the tyrosinase pigmentation gene promoter in melanocytes. Another explanation could be that hyperpigmentation is due to drug metabolites that chelate with iron and melanin.
The diagnosis of Imatinib-related hyperpigmentation depends on accurate medical history and physical examination, confirmed with histological examination. The hyperpigmented lesions are benign, and no treatment is required. Furthermore, since this lesions occur on the hard-palatal mucosa, there are no aesthetic problems.

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Case report

Microbiological correlations between aterosclerosis and parodontal disease

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Introduction. Various experimental and epidemiological studies have suggested the existence of a correlation between arteriosclerosis and periodontal disease.
The aim of our study is to investigate the presence of periodontopathogenic bacteria within atherosclerotic plaques with the aim of demonstrating a microbiological relationship between atherosclerosis and periodontitis.
Materials and Methods. The study was carried out through a collaboration between Dentists, Cardiac Surgeons and Microbiologists working at the University of Insubria. All blood samples from 20 patients hospitalized at the Circolo di Varese Hospital, ASST-Settelaghi with atherosclerosis and periodontal disease were studied. These samples were subjected to the research of the DNA of the above-mentioned bacteria by using the reaction of "PCR-MULTIPLEX" to test for the presence of the following bacteria: P. gengivalis, A. actinomycetemcomitans, F. nucleatum, P. intermedia, B. forsythus in samples of pastoral tampons and gums. The results of the samples were compared with the presence of atherosclerotic plaques.
Results. At least one parodontopathogenic bacterial species was present in all oral swabs, in 12 atherosclerotic plaques of 20 and in 7 blood samples of 20. In 3 of 20 patients (15%) there was presence of Bacterial DNA in all the samples taken and the most represented bacteria specie was Fusobacterium nucleatum.
Conclusions. The results obtained show a correlation between the presence of aterosclerotic disease and the presence of parodontopathogenic bacteria. The ability to move parodontopathogenic bacteria from periodontal pockets to atherosclerotic plaques through the bloodstream and underline the importance of periodontitis in patients with atherosclerosis as a possible source of bacteria that can aggravate the formation of atheromas in the blood vessels. It is therefore plausible that proper treatment of periodontal disease may improve atherosclerotic pathology.
Only by further investigation of molecular epidemiology will be able to increase the knowledge on the actual molecular and cellular mechanisms involved in the interaction between oral cavity bacteria and atherosclerosis.

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Case report

Intraosseous salivary mucinous adenocarcinoma of the mandible

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Introduction. Mucinous adenocarcinoma (MAC) of the salivary glands is a rare malignancy characterized by small clusters and cords of carcinomatous cells floating within pools of extracellular mucin compartmentalized by

fibrous septa. MAC is a malignancy rarely affecting the salivary glands, with fewer than 30 cases described in the medical literature. Salivary MAC primarily affects men, with a 2:1 male/female ratio, and although it may involve the major salivary glands, it is most frequently observed in the minor salivary glands, with the palate being the preferred site. MAC of the gingiva is exceedingly rare, with only one case reported in the literature, occurring in the upper jaw. Identifying a salivary MAC may be both clinically and histopathologically challenging, as differential diagnosis must consider not only other salivary malignancies expressing a mucinous component but also metastases from MACs of the gastrointestinal tract, breast, and sweat glands that strongly resemble a salivary MAC on histopathology.

Methods. This case report describes a MAC that developed in the mandibular bone and manifested with gingival overgrowth, but with clinical and radiologic features strongly suggestive of being the first reported case of intraosseous salivary MAC of the lower jawbone.

An 80-year-old Caucasian man was referred to our institution in April 2013 with a painless mass in the left mandibular gingiva that had been growing for the past 9 months around the canine and the second incisor tooth diagnosticated as a periodontal reaction.

The history: 7 months previously, the patient had sought a dental consultation with a private practitioner for a mild gingival overgrowth and tooth migration at the same site. Owing to severe hypermobility of the affected teeth, these were removed and systemic antibiotics were administered. The lesion was not processed for histological examination.

Results and Discussion. On examination at our department, we detected a 3.5 cm, exophytic-ulcerated lesion that did not affect the floor of the mouth and mostly involved the buccal and the lingual side of the mandibular gingiva in the area between the first left incisor and the first molar. Computed tomography (CT) of the mandible revealed an irregular mass bulging from the gingiva, with underlying bone destruction and resorption of the lingual and the vestibular cortices. A transoral biopsy revealed a mucinous adenocarcinoma. To confirm the diagnosis of a primary MAC and rule out the existence of metastatic disease, we performed comprehensive physical, radiologic, and laboratory examinations, including total body CT and tumor serological marker evaluation.

On clinical examination, the mass mimicked a hyperplastic lesion; but after biopsy, the histopathologic pattern suggested a diagnosis of MAC. Herein, we present how comprehensive physical examination of the patient, immunohistochemistry study of the specimen, and radiological features helped in establishing the diagnosis of intraosseous salivary MAC, ruling out metastatic disease or other salivary neoplasms.

Conclusions. Under general anesthesia, the patient underwent extraoral partial mandibulectomy, including the submandibular gland, with a left upper neck dissection of the levels 1A-B and 2A-3A, and a mandibular reconstruction with a titanium plate and microvascular forearm flap. The post-surgical period was uneventful, and no additional adjuvant therapy was required. No recurrence was observed at the 28-month follow-up.

Case Report

Medication-related osteonecrosis of the jaw: conservative management in a stage 3 osteoporotic patient

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Background. Surgical treatment of medication-related osteonecrosis of the jaw (MRONJ), especially in presence of wide volume of necrotic bone can be quite aggressive, with an important impact for the quality of life, especially in aged patients. We describe the non-surgical management of an osteoporotic patient with a stage 3 MRONJ.

Case details. A 80-year old woman was treated for 8 years with alendronate per os (Fosamax®, Merck Sharp & Dhome, White House Station, NJ, USA) for osteoporosis and developed MRONJ in 2012 after the extraction of maxillary teeth. The computed tomographic (CT) imaging was consistent with the clinical diagnosis of MRONJ, showing extensive osteonecrosis of the left side of the hard palate, and the medial and infero lateral walls of the maxillary sinus. In view of the age of the patient and in view of the morbidity of a surgical approach, a conservative management was undertaken. The presence of infection was managed by antibiotic therapy according to In-

ternational guidelines: amoxicillin/clavulanate (1000 mg orally three times a day for 10 days), metronidazole (250 mg orally three times a day for 10 days) and chlorhexidine rinse 0.12% three times a day for 30 seconds. Adjunctive treatment with subcutaneous teriparatide (Forteo®) at a dose of 20 µg a day for 2 months was administered.After 6 weeks of treatment, symptoms and purulent drainage resolved, with substantial improvement of the quality of life of the patient and closure of the oro-antral fistula. In 2017, a spontaneous sequestrectomy of bone affected by necrosis was observed, with subsequent healing of soft tissues. In the present case a surgical management would have required an extensive maxillectomy resulting in a wide oro-nasal communication; then an obturator prosthesis would have been needed in order to allow the patient to feed. Aiming to avoid such a surgical treatment and its sequelae, we first performed an only medical treatment which, in this case, succeeded in resolving symptoms and improving the quality of life of the patient. During the following years, in absence of new infective episodes, a self-limitation of the necrosis was achieved. Management of MRONJ continues to be controversial. The literature highlights that about 71-80% of MRONJ patient improved or remained asymptomatic with a non-surgical approach. Recently, some Authors have promoted early extensive surgical intervention and found treatment to be successful in over 85%. However, these reports did not consider the severity, morbidity, or the cost of the treatment. Teriparatide could successfully be used as adjunct therapy for osteonecrosis in osteoporotic patients, because it has an anabolic effect and potential role in accelerating bone healing. Even if surgery is the most frequently selected option to treat MRONJ, the present case shows that in presence of a successful medical treatment limiting infection, surgery could be not mandatory in order to gain a good quality of life for patients.

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Case report

A primary oral mucosal melanoma: a 20-year follow-up case report

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Oral mucosal melanoma (OMM) is rare tumor (0.5% of all oral malignancies) with a poor prognosis. OMM affects between fifth and seventh decade of life with a slighter prevalence of male. In the 80% of cases OMM affect hard palate and the maxillary gingiva. Risks factor are unknown, although several studies describe a higher incidence of OMM in smokers. Early lesions have variable size and different pigmentations resuming in ABCDE rule.

Diagnosis of OMM is often delayed because of its hidden location and the lack of early symptoms until dental mobility, bleeding sensations, growing and expansion occurs. At the time of 25% of patients had regional lymph node metastases and 10% had distant dissemination. 18.5 months is the mean survival period with a 5-year survival rate of 4.5-29%. Surgical resection, radiotherapy and immunotherapy are the main treatment protocols, with a recurrence rate of about 50%. The aim of this study is to describe a case with a 20-year follow-up.

A 74-year-old male patient was reported in May 1997 with a compliant of worsening pain and swelling from hard palate. The patient was hard smoker, with poor oral hygiene. Past medical history was unremarkable. Extraoral examination were negative, while intraoral examination showed a wide dark coloured lesion affecting the right hard palate from premaxilla to 5 cm posterior and from palatine raphe to 3 cm lateral to right alveolar crest. The neoplasm was nontender, firm in consistency, measuring 4.5 x 3 cm. ABCDE rule was clearly positive and a was staged T4N0M0 after a negative total body PET-TC.

An en block resection of the neoplasm was conducted. Under general anesthesia the cleavage plate and the bo-

ne plate were exposed and osteotomy was performed using a bone burst. Surgical wound was sutured and topical agents supporting secondary intention healing were used. Histopathology showed intraepidermal melanoma outbreaks and infestation of the chorion with discrete peritumoral lymphoplasmic cell infiltrate.
Patient attended a regular follow-up but in November 1998 an OMM *in situ* of 1 x 0.5 cm was resected. Also in July 2004 and October 2005 several excisional biopsies were performed revealing Outbreaks of in situ OMM. Two other lesions were resected from right hard palate and upper lip revealing ulcerated OMM in May and September 2006. Deep cervical lymph nodes were metastatic. In May 2017, the patient was referred again for an ulcerated exophytic lesion of about 2 cm on the right cheek and 0.5 cm one on the right half of the oral floor. After excisional biopsy histopathology showed another OMM. Considering the peculiarity of the patient's condition, the decision to start a palliative therapy was taken.

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Case Report

A pediatric Pindborg Tumor: a case report

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Calcifying epithelial odontogenic tumor (CEOT), also called Pindborg Tumor, is a rare, benign but locally aggressive tumor which represent less than 1% of all odontogenic neoplasms, with a recurrence rate of 10-15%. This tumor frequently affects adults (20-60 years), with a peak incidence in the fifth decade of life, while pediatric cases are extremely rare. Growth is slow and asymptomatic, and in the 52% of cases CEOT is associated with an impacted, displaced tooth or root resorption. The aim of this study is to present a pediatric case with sinus localization.
A 12-years-old female patient was referred with a worsening pain and swelling from upper left posterior region of maxilla in the last 3 months. Past medical history was unremarkable.
Extraoral examination revealed a diffuse swelling on the left side of the face with facial asymmetry. On palpation, swelling was non-tender, hard in consistency, lymph nodes were not palpable and temporomandibular joint was normal.
On intraoral inspection, swelling area extending from 2.6 to 2.3 was observed in association with 2.5 element agenesis and persistent 6.5 deciduous tooth. Vitality tests on near teeth were positive, without alterations in color, shape and mobility.
Radiographic investigation with CBCT revealed a hypodense formation in the left jaw, rounded, with regular contours, of 3.7 cm in diameter, with 2.5 tooth embedded. Margins of the lesion erode the root of the deciduous 6.5, the lower wall of the maxillary sinus and the lateral plate of the left ethmoid sinus.
To reduce the risk of recurrence of disease, radical surgical resection of the neoplasm with clean margins was conducted.
Under general anesthesia a mucoperiosteal flap was conducted in vestibular surface of left maxilla from 2.7 to 2.1 using piezoelectric bone scalpel. Osteotomy of vestibular plate in 2.5 position was performed and after exposition of the cleavage plane the cystic lesion were enucleated. A small fenestration was observed between residual cavity and maxillary sinus. The remaining cavity was filled with platelet-rich fibrin and sutured.
Gross pathology showed a white specimen, including a tooth, measuring 2.7 x 2 cm in size, with calcifying areas. Histopathology showed a neoplasm with solid nests growth pattern, intracytoplasmic lumen and ductal-like structure. A fibrous capsule enclosing epithelioid-like cells with abundant and eosinophilic cytoplasm. Large areas of amorphous, eosinophilic, hyalinized material were observed and Liesegang ring appearance calcification. Immunohistochemical analysis showed no positivity for CK7 and CK20; while CK19, p63 and bcl2 were positive. The histopathological features suggested diagnosis of CEOT.

Postoperative period was uneventful; a follow-up CBCT was conducted 1 year after revealing the formation of new alveolar bridge.

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Case report

Multidisciplinary approach in a case of Hand-Schüller-Christian disease with maxillary involvement

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Langerhans cell Histiocytosis (LCH) is a childhood pathology, characterized by a disorder of the reticulo-endothelial system with a peak of incidence ranging from 1 to 4 years of age (1), though diagnosis is often made in adult age. LCH is clinically classified into three types: eosinophilic granuloma, Hand Schuller Christian disease and Abt-Letterer-Siwe disease (2) LCH may have different clinical presentations. Virtually, all tissues can be affected by the disease, which may be characterized by solitary lesions in a single organ or by disseminated disease with organ dysfunction. The most commonly affected sites are the bones skin, and lymph nodes but the lungs, the liver, the spleen and the haematopoietic tissue might be involved (3). We report a case of Hand-Schüller-Christian disease with diabetes insipidus, skull and maxillary involvement in a 16-year-old boy referred to our observation for gradual increase in mobility of the teeth and subsequent gradual loss of 15, 16, 25, 26. Lateral and postero-anterior skull radiograph revealed multiple well defined punched out radiolucencies, while the orthopantomograph revealed irregular bone destruction in relation to 15, 16, 25, 26 and periapical reactions of 17 and 27.

Laboratory exams (complete blood cell count, hematocrit, hemoglobin, coagulation studies, liver function tests) were normal and chest radiography, bone scintigraphy showed no evidence of other lesions.

The incisional biopsy of the mucosa and that of the intra-osseus tissue in 15, 16, 25, 26 regions was performed. Histopathologic examination revealed a diffuse infiltration of large pale-staining histiocytic cells interspaced with lymphocytes, plasma cells and eosinophiles suggestive of Langerhan's cell Histiocytosis.

Due to the extension of the lesion and the age of the patient, surgery and chemotherapy was chosen as the more fit treatment according to the current protocol. The treatment consisted of localized lesion enucleation and bone curettage. Post-operatively, patient was treated with vinblastine (VBL) 6 mg/m2/weekly i.v. bolus q 6 weeks and prednisone (PRD) 40 mg/m2/day x 4 weeks, tapering in 2 weeks. The treatment was continued with VBL 6 mg/m2/weekly q 3 weeks and PRD 40 mg/m2/day x 5 days q 3 weeks. The overall therapy duration was 6 months.

The clinical and radiological evaluation at the end of the therapy and after five years showed complete remission. The absence of relapse has allowed to initiate a fixed orthodontic dental alignment treatment a good response to orthodontic treatment despite the underlying disease. The present case exemplifies the importance of close collaboration between general dentistry and its disciplines (periodontology, restorative dentistry, oral medicine, oral and maxillofacial pathology and oral radiology), and hematology-oncology for diagnosis, management, treatment monitoring and decision-making.

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Case report

Malign circle-shaped fibrous histiocytoma of the cheek: a case report

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Introduction. Fibrous histiocytoma (FH) is a neoplasm characterized of fibroblastic and histiocytic cells. Based on where this tumour occurs, FH can be classified as cutaneous types and those concerning deep tissues. This neoplasm develops usually in adult extremities but rarely arises in deep soft tissues of the oral cavity. According to the biological behavior FH could be linked to a benign (BFH) and malign (MFH) form. It's reported that less than 10% of all malignant FH involve Head and Neck region, and less than 0.5% of all malignant tumours of head and neck is a MFH. In a previous study of 2005 only 45 cases of MFH were reported involving the oral cavity. Literature lacks of details about MFH clinical presentation. A review should be performed.
Most of the studies and reviews focus on the benign FH. This tumous usually arises in sun-exposed skin and in orbital tissues. BFH rarely involve oral cavity. It is reported a predominance in male adults (2.5:1, with a mean age of 40 years. According to Laure-Anne Prisse's Review, "macroscopically, BFH are generally round to oval-shaped, whitish to yellowish and firm. The lesions are well demarcated from surrounding tissues but not properly encapsulated". Because of this kind of presentation in the oral cavity, this tumour could be clinically miss-diagnosed. That's why histopathological examination has an important role for the differencial diagnosis. Different markers are report in the literature.
Case Report. A 36-year-old male patient came to the Multidisciplinary Department of Medical-Surgical and Dental Specialties, Second University of Naples, Italy, with painless swelling in the right buccal mucosa of the cheek along the linea alba. The patient reported no medical history or history of trauma, even if it's reported in Literature that most of HFs are linked to a previous infection or trauma. A mass was palpable at the right buccal mucosa. Patient underwent excisional biopsy for the histopathological examination with diagnosis of malign fibrous histiocytoma. The patient is under follow-up, which showed after 6 months no signs of recurrence.
Conclusion. Histopathological examination has a main role for the correct diagnosis because of the clinical presentation of the HF, that could be miss-diagnosed with other common diseases from fibroma to other malignant pathologies. BFH is well described in Literature, which lack of informations about the MFH, above all the use of diagnostic marker.

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Case report

Mandible eosinophilic lesion regression after endodontic treatment: one year follow-up

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Langerhans cell histiocytosis (LCH) is a rare disorder characterized by lesions containing CD207+ dendritic cells and an inflammatory infiltrate. The etiology is still unclear, but dis-regulation of T suppressor lymphocytes, neoplastic proliferation of Langerhans cells and some genetic components are involved. The disease can result in a highly variable of clinical evidences, ranging from a single lesion to potentially fatal disseminated disease when involves high-risk organs. Sometimes, the oral cavity may be the first or the unique site affected by LCH site, and it is possible to find ulceration of the oral mucosa, periodontal defects, dental hypermobility or premature tooth loss. The diagnosis is related to histological report, supported by clinical and radiological examination.
Here we report a case of 23 years old healthy male diagnosed with eosinophilic granuloma. The patient came to our observation for pain and swelling in correspondence of the right side of the mandibular body. After the initial endodontic treatment of the 4.6, a Cone Beam Dentalscan examination revealed a generalized and diffused multifocal radiotransparency area with aggressive feature able to determine erosion of the cortical bone of the lower edge and the mandible lingual wall beneath the miloioid line.
Incisional biopsy was performed in order to obtain a proper diagnosis. The histological examination revealed a proliferation of medium/large cells with large cytoplasm and irregular nucleus, with the presence of eosinophilic granulocytes and some lymphocytes.
The diagnosis of Eosinophilic granuloma (EG) was formulated.
After 7 month, a new CT Dentalscan revealed important signs of remission without other treatment. After 6 months a new additional control by Cone Beam showed further signs of improvement.
Although limited to a single clinical case, it can be assumed that in selected cases where the eosinophilic granuloma is associated with necrotic teeth, a conservative endodontic treatment followed by a careful observation may be useful. However, more studies are needed to investigate the origin and development of such lesions.

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Case report

Role of β-Defensin in oral pathologies

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Introduction and aims. The Antimicrobial peptides (AMPs) are polypeptides of less than 100 aminoacids that are found in host defense settings and have antimicrobial, antiviral and antifungal activity at physiological concentrations under conditions prevailing in the tissues of origin. In mammals there are many AMPs, but they can be classified into two families that have been thoroughly characterized, the cathelicidins and the defensins.
We will focalize on β-Defensin 2 an subgroup of defensins. A decrease in number or function of defensins could

increase the host's susceptibility to infections. On the contrary, in autoimmune or disregulated immune responses the AMPs' activity seem to be altered.
The aim of this study focuses on the possible role of defensins in the pathogenesis and maintenance of several oral pathologies.
In particular this study reports the results for Oral Lichen Planus and Burning Mouth Syndrome.
Materials and methods. A total number of 35 patients were recruited for this study, 17 were affected by Oral Lichen Planus (OLP), 9 by Burning Mouth Syndrome (BMS) and 9 were included as a control group (CTRL). From this Patients were collected crevicular fluid and salivary samples in sterile tubes and then sent to the laboratory for evaluation. Specimen were processed to quantify the amount of Human ß-Defensin 2 in the standard solutions or samples. Human β-Defensin 2 Elisa Kit protocol was used for this study.
Results and discussion. One-way ANOVA test was used to compare the values of salivary and crevicular HBD-2 registered among the three groups. There was not any statistically significant difference between the groups (p=0.523; p=0.897), both the Burning Mouth Syndrome and Oral Lichen Planus. However, the latter seemed to show increased mean levels of HBD-2. Besides, the study highlighted the role of HBD-2 in the maintenance and intensity of the inflammatory component in Oral Lichen Planus.
Patients affected by OLP showed a dycotomic distribution of values: while 10 of them showed similar values to those found out in the other two groups, 7 patients expressed high levels of HBD-2, and 3500 pg/ml was the threshold to distinguish the subgroups.
During the dental visit the clinician classified OLP patients into two groups according to the clinical presentation of the disease: reticular and hyperplastic OLP forms were considered to be associated with a low level of disease and inflammation, whereas atrophic and erosive forms were related to a high degree of inflammation.
There was a statistical significant correlation between the clinical and numeric classification of the patients (p=0.004; p=0.001), and the expression of HBD-2 was higher in the red OLP group than in the white OLP group (p=0.000; p=0.000).
Conclusion. This study shows that HBD-2, which is an inducible molecule, represents an index to assess active inflammation and it is probably linked to the presence of the typical band-like CD8+ infiltrate in Oral Lichen Planus.
HBD-2 can be used as a parameter to monitorize the degree of disease activity and inflammation.

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Case report

Helicobacter pylori: from the mouth to the stomach, is it possible?

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Introductions and aims. Helicobacter pylori is one of the most common infective agents in man. The bacterium primarily resides in the human stomach, where it causes inflammation of the gastric mucosa, which can lead to gastritis, duodenal or gastric ulcer and even gastric carcinoma or MALT lymphoma.
Dental plaque and saliva have been considered as a reservoir for Helicobacter pylori but this hypothesis is still questionable at the moment.
The aim of this study is to estimate the presence of Helicobacter pylori in saliva and periodontal pockets of the patients recruited from the Gastroenterology Department of Ospedale di Circolo Fondazione Macchi in Varese by means of C-Urea Breath Test and PCR (Polimerase Chain Reaction) method and, consequentially, to evaluate the relationship of the oral infection with HP, with the gastric infection or re-infection after antibiotics therapy and with the oral health, particularly with periodontal disease.
Materials and methods. Sixty patients, with or without an history of infection with HP and/or gastrointestinal

problems, were subjected to C-Urea Breath Test and microbial analysis with PCR of saliva and subgingival plaque in periodontal pockets.
Results. 50% of the patients tested were positive to C-Urea Breath Test and 50% were negative; but only 58% had an history of past infection by HP. 42% of patients were positive to bacteria, detected in periodontal sockets and/or in saliva, while 43% of the patients resulted negative, with particular relationship of these data with the positivity or not to Breath Test.
Discussion. Even though there was no statistically significant difference between the two groups (A vs B) with regard to the total amount of HP in saliva or in periodontal tissues, this study demonstrates that the oral cavity is an extra-gastric reservoir of HP when it is affected by periodontal disease (defined by depth of the pockets higher or equal to 4 mm), and that periodontal disease is correlated to gastric HP infection. A statistically significant correlation between periodontal disease and Helicobacter pylori load in oral cavity was found, so dental plaque may represent a risk factor for gastrointestinal reinfection after systemic antimicrobial therapy.
Conclusions. New treatment protocols, which combine periodontal therapy with systemic antimicrobial therapy, may be adopted in order to completely eradicate this microorganism and prevent long terms recurrences.
This study will continue to be tested to further confirm the role of the oral cavity as a reservoir of Helicobacter pylori in gastrointestinal primary infections or re-infections in patients after the failure of the systemic eradication antibiotic therapy.

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Case report

B-NHL of bichat fat pad

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Lymphoma is a neoplasia belonging to a heterogeneous group of malignant tumors that involve lymph nodes and the lympho-glandular system in general, including lymphocytes B, T lymphocytes, and related precursors. Lymphomas have a very high incidence, which is one of the most frequent malignant tumors on the world stage and is the fifth cause of death for cancer.
The purpose of this case report is to present a rare case of Bichat fat pad lymphoma and to point out that through careful clinical management of the patient with oral facial desease, it is possible to diagnose early high mortality and morbidity diseases with consequent improvement of prognosis.
Case presentation. Patient (63 years, F, non-smoking, suffering from: hypertension, diabetes mellitus type II, gastroesophageal reflux, BPCO, carotid stenosis, chronic ischemic cardiomyopathy) comes to our observation for suspicion of prosthetic decubitus and replacement of total prosthesis. At intra-oral target examination, total edentularity is evident, mucous membranes appear whole, and in the extra-oral examination we detect a hard-elastic consistency in the left zygomatic region. The patient reports that this asymptomatic tumor has been present for about a year and was attributed to a prosthetic decubitus. Zigomatic left region ultrasound is prescribed, from which we can see that in the context of the Bichat adipose bubble, there is a nodular form of hypoechoic nebulizer showing minimal peripheral vascular signal. Therefore, the injected needle and TC with mdc were further investigated. The ultrasound guided needle was positive for the presence of malignant cells, and the cytopathologic framework showed a lymphoid medium to large atypical lymphoid population, which exhibited phenotype B and clonality for light lambda chains. Lymphoproliferative disease of non-Hodgkin B cell line was then diagnosed. The PET TC Total Body showed trace acute accumulation at the right-to-right cervical region, the masseter region and the left zygomatic region. The patient was sent to the Department of Hematology, subjected to Mielobiopsia, whose result shows a trilinear marrow with notes of dysplasia of the granulocytic and erythrocyte series. The therapeutic protocol foresees in relation to the general conditions of the patient and advanced

age the use of biological drugs with RITUXIMAB with initial weekly and later monthly and PEGFILGRASTIM injectable solution 6 mg 1 unit per 28 days with a therapeutic cycle of 168 days. The five-month results show that the patient is in clinical remission, and there is no residual disease in imaging diagnostics. In conclusion, it can be stated that a simple and well-established diagnostic algorithm permits in the vast majority of cases a rapid framing of the patient and that such algorithms must be a common asset of the dental profession.

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Case report

Azathioprine related EBV+ mucosal ulceration

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In March 2017, an 81-year-old female patient was referred to investigate a wide ulcerated lesion which was involving lower right gingival mucosa, mandibular vestibular and lingual side and partially the floor of the mouth. Medical history was positive for Crohn's disease from 1980 with left colon partial resection; drug history includes azathioprine 125 mg/die since 2014 (3 yrs), mesalazine 800 mg and general antihypertensive therapy.

The oral cavity reflected good oral hygiene; the right posterior mandibular arch was edentulous distal to the right mandibular first premolar due to PFM crowns and abutment teeth extraction in February 2017, subsequently to mobility, failure, decay relapse and infiltration. Generally, a substantial good health condition was appreciable and emerged from patient speech.

Clinically, lesion appeared as white-greyish ulcer with signs of necrosis and fibrin-like membranes. Mucosal epithelium was crumbly and brittle, easily bleeding; no other ulcers were present elsewhere in the mouth. A light swelling of the right mandibular body was appreciable during palpation; head and neck nodes palpation was negative. Neither pain or neurological symptoms were reported.

Orthopantomography showed a slight radiolucency of the alveolar bone and signs of bone remodeling consequently to teeth extractions.

Clinically the lesions has a wide spectrum of differential diagnosis including: squamous cell carcinoma; lymphoproliferative disease such as lymphoma or CD30+ lymphoproliferative lesion; chronic ulceration related to Crohn's disease; viral infection; deep mycotic infection.

In spite of the long lasting presence of the lesion an incisional biopsy of 1.5x1 cm was performed.

Histological and immune-histochemical examination showed a necrotic ulcer like tissue, pseudo-epitheliomatous hyperplasia, with T-cells lymphocytic infiltration, CD30+/BERH2+. In deep layers of mucosal chorion, large CD20/L26-, CD3-, CD79a+, PAX5+ and CD30+/BERH2+ cells were distinguishable. Moreover, lymphocytic infiltration was remarkably represented by T cells with CD3+, CD5+, CD2+, CD4+ and a few CD8+ cells.

A diagnosis of B mature cells aggressive lymphoma was proposed.

Total body contrast CT and PET scans showed no other pathology localization except hypermetabolic 10.5 SUV linked to the known gingival lesion. Conversely to histological diagnosis, lesion clinical appearance was comforting, with marked dimensional reduction and light change towards exophytic features.

Complete blood count and peripheral blood film returned no alterations. Myeloproliferative pathology was excluded; no pathological immune-phenotype lymphocyte population were detected; hence, B-cells clonality was excluded.

At the end of May, new wider full thickness mucosal biopsy (3x1.5 cm) was taken with partial underlying bone removal.

Histological and immune-histochemical examination showed large B Hodgkin cells (CD20+/L26-, CD79a+, PAX5+, CD30+/BERH2+, CD3-, CD10-, bcl6-, bcl2+/-), reactive T cells (CD3+, CD2+, Cd5+), moderate MIB1-LI,

negative search for cytokeratin (MoAB MNF116) and p63. Molecular clonal rearrangement of IgH heavy chain gene showed monoclonal cell population (FR1+,FR2+,FR3+) and TCR indicated T cells policlonality. In addition, *in situ* hybridization revealed positivity to EBV.
Based on the new evidences, diagnosis of EBV-Positive mucosal ulcer was stated.
Collegial hematologist and radiotherapist specialist discussion leaded to immediate suspension of azathioprine medication. Because of the self-limiting and no progressive behavior, no additional chemotherapy or RTP were planned.
Complete regression was achieved with mucosal healing; no signs of recurrence were observable at 3 months follow-up.

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Case report

Treatment of a hairy tongue with a new type of dental water jet producing ozonized water

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Black hairy tongue (BHT) is a benign condition characterized by a discolored, hairy appearance of the dorsal tongue. The prevalence of BHT is not known because its occurrence is highly variable among different populations and dependent on many factors; BHT is more common in men, elderly patients, smokers, HIV-positive, edentulous and also oncologic patients. The lesion is distributed on the dorsal aspect of the tongue and does not involve the lateral and the tip site of the tongue. The most common discoloration in this condition is black to blackish-brown, but it can present with green or yellow discoloration or can lack pigmentation altogether. This desease is often asyntomatic, but sometimes is associated with alitosis, limphoadenopathy, burning or tickling sensation. Besides poor oral hygiene, many substances and medications could cause, aggravate, or predispose a patient to BHT, for example, smoking tobacco, excess consumption of beverages such as black tea, coffee, alcohol, oxidizing mouthwashes, and also intravenous drug use are linked to an increased prevalence of BHT. This condition is benign, self-limiting, and the diagnosis is based on clinical presentation. First-line treatments include avoiding associated medications, practicing good oral hygiene, discontinuing habits predisposing to BHT, and gentle brushing or scraping of the lingual mucosa. The aim of this work is to report a case of hairy tongue in a 18 years old female patient, with no systemic pathology, undergone to antibiotic therapy, treated through a device for oral hygiene “Aquolab” that produce ozonated water. It is a dental water jet that mixes water and ozone, resulting in an antimicrobial action on treated surfaces, especially gums. Water and ozone levels are adjustable through 3 ozone concentration programs and 2 for the water dispensing seconds. Two 60-second cycles with program 2 are performed by directing the jet of water-ozone mixture onto the dorsal surface of the tongue for both water and ozone regulation without any final rinse. The same told us the next day a significant improvement in burning sensation and the next one-week control, she returned with almost total remission of the lesion. The use of ozonated water for the treatment of oral infections is successfully documented in the scientific literature against various bacterial and mycotic species without adverse effects. We propose this device in the care of hairy tongue, a disorder that afflicts an important proportion of the general population.

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Case report

Use of 808 nm diode laser for treatment of multiple tongue erosions as manifestation of gastro-esophageal disease

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Gastroesophageal reflux disease is a common patology with the highest spread in North America. The prevalence ot this desease ranged from 18.1 to 27.8% in North America, and from 8.8% to 25.9% in Europe. Among the oral manifestations of gastrointestinal disorder, there are erosions of the oral soft tissues. A recent study demonstrate that sometimes there is the involvement of the tongue in patient with gastro esophageal desease. There is no specific treatments in the literature for this type of oral lesion. We would describe a case of erosion tongue lesions in a 54-year-old male patient with severe gastroesophageal reflux, treated with a 808 nm diode laser.
The patient presented to our observation with burning multiple erosions on the dorsal part of the tongue, bigger than 1 cm of diameter, developed from several weeks. His past medical hystory was positive for gastro-duodenal ulcer, Helicobacter pylori infection, and he told us that he took several proton pump inhibitors to treat the gastroesophageal reflux. He tried to rinse with backing soda but without any benefit for the tongue lesions. A single session of 6 minutes diode Laser B-cure (DenMat Italy) 808 nm, 0.25 watt was performed. The light is applied to the lingual surface so that at the end of the six cycles all the lingual tissue is irradiated. After a week the lesions completely healed.
The use of Low Level Laser Therapy (LLLT) in the oral wound healing is documented in the literature, but not in the therapy of tongue erosion on gastroesophageal desease. A recent paper report a case of afta major treated succesfully with a single session of LLLT. The use of LASER with 808 nm of wavelenght is documented in the literature, in a work is demonstrated its effectiveness on oral pain when used prior to composite restoration for symptomatic non-carious cervical lesions unresponsive to desensitizing agent; and in another study laser with this wavelenght is considered the best for the control and elimination of the endodontic microbiota.
Therapy with this device could be succesfully used without any adverse events in the treatment of tongue erosion on oral manifestations of gastroesophageal disease.

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Case report

A new type of Photodynamic therapy for the treatment of oral candidosis

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Candida is a major human fungal pathogen causing infectious conditions predominantly in the elderly and immunocompromised hosts. The diagnosis of oral candidosis is essentially clinical. As first choice for topic treatment we have the Nystatin oral solution and among systemic drugs Fluconazole, Itraconazole, Voriconazole. The emergence of drug-resistant strains and frequent recurrence of the disease in affected individuals are increasing

challenges in therapy. The use of probiotics, prebiotics and synbiotics, ozoneted water and photodinamic therapy (PDT) has been purposed as an alternative antifungal therapies. A new type of PDT, performed with Fotosan 630 (cms dental, Denmark, Dentalica) it is proposed. It is a device that emits a LED light used in combination with a photosensitive reagent (Toluidine blue). In this case report we have described the use of the FotoSan 630 in the treatment of oral tongue candidosis in a immunodepressed patient.
A 34 years female patient, arrived at our observation with a condition of tongue candidosis. The patient reported medical history of hypothyroidism treated with Levothyroxine 125 mcg (1/day), and a recurrent apthous stomatitis, treated for 2 years with topical and systemic corticosteroids. It was decided to perform a session of photodynamic therapy with Fotosan 630 in combination with a photosensitive reagent (Toluidine blue in syringes with a concentration of 0.1 mg/ml). The dye was applied on the entire tongue surface of the lesion beyond the margins. The light diode was then turned on with cycles from 30 seconds, 5 consecutive times. After 5 days there was the healing of the tongue lesion.
The effectiveness of conventional medical therapies is undiscussed but their use is connected with collateral effects. Recently PDT has been purposed as an alternative to antibiotics for the treatment of microbial infections. This method is based on the activation of a photosensitizing agent and the production reactive oxygen species, which have a toxic effect on bacterial cells. In this small report it has been described a particular type of PDT in the treatment of an oral candidosis. On a review on PDT the Authors reported that it may be considered an effective antifungal treatment strategy, but no accordance was evident among the data related to the laser parameters, type and concentration of photosensitizer used. In a study has been reported that the wavelength of 630 nm (the same used in this work) seems to be most commonly associated with the inhibition of bacterial growth. Fotosan 630 has been tested in endodontic and periodontal therapy. A study has reported that Fotosan seems to have very low citotoxicity on human fibroblasts.
In a patient with a history of recurrent candidosis the use of a photodynamic therapy performed with FotoSan 630, can be considered effective and safe, easy to make when compared to other pharmacological device.

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Case report

Oral metastasis of colon cancer. A case report

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Introduction. Colorectal cancer (CRC) is the third most commonly diagnosed cancer and it is the third leading cause of cancer-related death in women and the fourth in men (1). Although the cancer metastasis is secondary to cancer development, the high mortality of CRC is mainly attributable to its metastasis. Metastasis is the process by which primary tumors invade into and start to proliferate in a distant new site. Despite the recent and continuous improvements in diagnosis and treatments, more than 50% of colon and rectal cancers metastasize to liver, lung and lymph nodes (2). Metastatic carcinoma to the jaws and oral region are very rare, representing less than 1% of all oral tumors. Unfortunately, oral metastasis is usually manifestation of an advanced stage of primary cancer, and indicates widespread disease and poor prognosis. Some studies investigated the oral metastasis and primary locations of the cancer. From such studies emerged that lungs and kidneys represent 52.2% of the primary cancer locations and the most affected oral regions were the gingiva and alveolar mucosa (60.7%), followed by the tongue (17.9%) (3).
Case report. We report a case of a patient with oral metastasis of the primary colon cancer.
The patient, 74 years old, male, affected by thrombosis and chronic pulmonary insufficiency presented a story

of colon adenocarcinoma, operated 12 years before. At the oral examination an extensive exophytic lesion localized on the gingiva in correspondence of the right upper premolar (1.4) was revealed.
The excisional biopsy was performed in order to determine the diagnosis of the lesion and the involved tooth was removed.
The histologic analysis revealed a metastasis origin of the lesion, resulted from the migration of the previous colon cancer.
At a two months follow-up visit the site of the lesion presented in healing, but an omolateral neck swelling was observed. Given the nature of the lesion, an ultrasound exam and a magnetic resonance were performed. The radiologic investigations revealed swolled lymph nodes located at the sub-mandibular sites (2.8x2 cm and 2.5x1.7 cm on the right and 3x2.3 on the left side).
A fine needle exam was then performed and the find orientated for the new location of the underlying disease (colon adenocarcinoma).
The patient so entered in a palliative radiotherapy protocol for the submandibular lesions.
Conclusions. Even if oral metastases are rare, their semiological value necessitates the histopathological examination of any oral tumour, and a systematic search in all patients with cancer history.

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