

by inhalation of N2O always preceded with 100% oxygen and followed by titration of anesthetic in 10% intervals. During analgesia / anxiolysis, the concentration of N2O must not exceed 50% of routine.

**Conclusion:** Our experience suggests that the use of conscious sedation techniques for controlling anxiety were associated with dental treatment is the preferred choice for the prevention of HAE acute events.

### Human Beta2-Defensin in oral lichen planus expresses the degree of inflammation

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**Aim:** The Antimicrobial peptides (AMPs) are polypeptides found in host defense settings, they have an antimicrobial activity. Other biological effects of AMPs have been described recently: chemotaxis, immunomodulating activity, and angiogenesis. Among AMPs, defensins ( $\alpha$ ,  $\beta$  and  $\theta$ -defensins) occupy a strategic position because of their antiviral, antifungal, antibacterial and anti-parasite activities. A decrease in number or function of defensins could increase the host's susceptibility to infections. On the other hand, in autoimmune or dysregulated immune responses the AMPs' activity seem to be altered. Their roles in the oral cavity and their association with several mucosal and gingival diseases such as Candidiasis, Herpes Labialis and Erythema Migrans are recently under study. Defensins have been found in oral tissues, salivary glands, salivary secretions and crevicular fluid. Up to now, just few researches have investigated HBD-1 or HBD-2 in the saliva of patients with Oral Lichen Planus (OLP) or Burning Mouth Syndrome (BMS).

**Methods:** The current study was conducted on a total of 35 patients, 17 were affected by OLP (11 females and 6 males of age >30), 9 by BMS (women of age > 45) and 9 were included as a control group. Each patient underwent a dental examination where a sample of saliva was collected. Secondly, a sterile paper cone was inserted for 30 seconds into the gingival sulcus nearby a dental element chosen through randomized criteria. The procedure was

carried out 4 times per patient, each time near a different tooth, to collect enough crevicular fluid. In OLP patients were also evaluated the lesions subdividing into red OLP and white OLP. The samples were stored at a temperature of  $-20^{\circ}\text{C}$ . Human  $\beta$ -Defensin 2 Elisa Kit protocol was used for this study, the immunoplate was precoated with anti-HBD-2 Capture Antibody and the non-specific binding sites were blocked. The intensity of the colour was directly proportional to the amount of HBD-2 in the samples. In addition, a comparative statistics among the different groups was performed.

**Results:** There was not any significant difference among the 3 groups with regards to the production of salivary and gingival HBD-2. The distribution of values registered in saliva and crevicular fluid was strictly correlated, they both contain an equivalent quantity of HBD-2 in the same patient. In OLP group, the red OLP subgroup shows high values of HBD-2 in saliva and crevicular fluid ( $>3500$  pg/ml), the white OLP subgroup has values similar to those detected in the control and BMS groups ( $<3500$  pg/ml).

**Conclusion:** In this study the choice was to study the role of HBD-2, which is an inducible and not constitutionally expressed defensin, in the pathogenesis of the most frequent autoimmune disease of the oral cavity. There was not any statistically significant difference between the three groups. 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 with white OLP showed similar values to those found out in the other two groups, 7 patients affected by red OLP expressed high levels of HBD-2 in saliva and crevicular fluid. In conclusion, this study shows that HBD-2, 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.

### A case of osteonecrosis of the jaws in epidermolysis bullosa patient treated with rituximab

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**Aim:** Osteonecrosis of the jaw (ONJ) is a potentially

severe adverse effect of various medications (bisphosphonates, anti-resorptive, and anti-angiogenic drugs), consisting of the progressive destruction and death of bone, that affects mandible or maxilla. Among anti-angiogenic drugs, target therapy has been recently related to osteonecrosis of the jaw. Rituximab is a monoclonal, chimeric (mouse/human) anti-CD20 antibody. CD20 is a molecule found only in most mature B cells, and it is absent from either bone marrow stem cells or pro-B cells. It is used as an anti-tumoral medication in lymphoproliferative diseases and as an immunomodulator agent in some auto-immune diseases such as Epidermolysis bullosa. In particular, it has been reported to be effective in the adult form of Epidermolysis bullosa acquisita (EBA), a chronic, autoimmune, subepidermal and blistering disease characterized by circulating and tissue-bound autoantibodies targeting type VII collagen, which is the major component of anchoring fibrils. Recent studies have demonstrated that Rituximab can exert part of its antitumoral action, due to its influence on angiogenesis, with a reduction in vascular endothelial growth factor (VEGF) levels in patients. We report a case of a patient with EBA, who developed ONJ after Rituximab treatment.

**Methods:** We describe a case report of a 76 years old woman with EBA who referred to our service for a middle palate ulcer. Intraoral examination revealed a proliferative ulcer on the midline of the hard palate. The patient reported a history of EBA, diagnosed in 2016, and has been treated with Rituximab for two monthly cycles (November 2016 and January 2017). The patient has also taken with Alendronate since 3 months for osteoporosis.

**Results:** The patient has been treated with systemic antibiotic therapy (Ampicillin/Sulbactam 1g IM, 2/die for 7 days + Metronidazole 250 mg OS, 3/ die for 7 days) and ozone therapy (3 minutes for each session, once a week for 2 months). After one week of antibiotic therapy, the ulcer healed, revealing exposed necrotic bone. We hypothesize that ONJ has been induced by Rituximab and not by Alendronate that has been administered per os and has not reached an adequate cumulative dose for the onset of ONJ.

**Conclusions:** Osteonecrosis of the jaw has been related to several medications, but the association with Rituximab is nowadays rarely described in literature. Rituximab has a pharmacodynamic path that is similar to other ONJ-related medications and this case report emphasizes the role of this particular drug as a risk factor. Nevertheless, further studies, such as RCT, are necessary to assess the role of this drug in the ONJ pathogenesis.

## Secondary syphilis: challenging diagnosis of first

## clinical manifestation in oral cavity

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**Aim:** Syphilis is a systemic infectious disease caused by the filamentous, anaerobic spirochete *Treponema Pallidum*. The disease can be transmitted sexually (acquired syphilis) or vertically via the placenta (congenital syphilis). On the basis of its activity and infectivity phase, acquired syphilis can be classified into four stages: primary, secondary, latent, and tertiary. Oral lesions are principally associated with secondary syphilis, occurring in 30–50% of cases, although all stages can give rise to oral manifestations. This wide array of manifestations and variability in their appearance has given syphilis the reputation as the "great imitator" and represent a diagnostic challenge.

**Methods:** We hereby present two cases of secondary syphilis.

1. A 66 year-old Christian Priest who was spending most of his time in Brazil for religious purposes, was addressed to our consultation by his GP and his dentist due to suspicious "aphthous stomatitis". Several ulcers on ventral tongue and dorsum, lower lip, hard and soft palate were observable since two months. Pharyngodynia and malaise were reported; no cutaneous, genital or ocular manifestations could be disclosed at recent, remote anamnesis and clinical observation. No lymph node enlargement was appreciable. Medical anamnesis was positive for hypertension, episodes of angina, benign prostatic hypertrophy, hypercholesterolemia and atrophic gastritis; drug history consist of antihypertensive, gastroprotectants, and ASA. Complete blood test and specific serology (TPPA, VDRL and FTA-Abs) were requested. Multiple incisional biopsies were performed.

2. A 56 year-old man working as trucker, HIV and HCV positive, was referred for consultation by Infectious Disease Center to investigate a single ulceration of the right lateral tongue, noticed two months before. Meantime, before the specialist examination, a new labial ulceration, similar to "aphthous lesion", arose. In addition to HIV/HCV positivity, remote anamnesis was positive for HCV related cirrhosis, hypertension and heroine abuse history. No history of cutaneous, genital or ocular manifestations was reported. Clinical observation was negative. No lymph node enlargement was