

analysis should prove to be an extremely important investigation in both cross-sectional and longitudinal studies of Sjogren's syndrome.

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Characteristics of oral leukoplakia affecting gingivae among a Japanese population

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Objectives: Leukoplakia (OL) affecting the gingivae (gingival leukoplakia: GL) is uncommon in European populations. However, our population screening studies have confirmed this to be the most frequent location of OL in Japanese. We investigated a cohort of patients with GL and their clinical-demographic features were compared with patients with OL affecting other sites (n-GL).

Methods: All subjects attending four city hospitals in Japan diagnosed with OL (during 2009-11) were included in this case-control study. OL was diagnosed by WHO criteria (Warnakulasuriya et al. J Oral Pathol Med 2007;36:575-80). They were interviewed for risk factors, and investigated by patch testing for dental materials and by biopsy for dysplasia recording.

Results: One hundred and fifty subjects were recruited, 87 with GL and 63 with n-GL. GL was more common among women (53%) and n-GL among men (58%). Thirteen percent of GL cases also had other affected oral sites. GL lesions were predominantly white (93%), affected buccal sites (73%) and smaller in size ($> 200 \text{ mm}^2$). Twenty-six percent n-GL leukoplakia had red (speckled) foci. Eighty-one percent GL were seen in association with prostheses and 27% close to amalgam fillings. There were no significant differences by age (mean ages: GL, 65.9; n-GL, 62.3) or in tobacco and alcohol use in the two groups. However, alcohol intolerance (flush reaction) was higher in n-GL group (73%) ($P = 0.035$). Metal allergy testing was positive in 58% of the GL group but was not significantly higher compared to the n-GL group (41%). Higher dysplasia grades were found in n-GL ($P = 0.018$).

Conclusions: GL in Japanese is more benign compared to n-GL, and no additional risk factors were noted. Oral leukoplakia in n-GL sites may be associated with oxidative pathway of alcohol metabolism in Japanese.

Relevance: Leukoplakia affecting gingivae is more common in Japanese people and not significantly related to metal allergy compared to other sites.

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Patients oral conditions before hematopoietic stem-cell transplantation in Brazil

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Objectives: This prospective multicenter study aims to conduct an epidemiologic survey of oral health status of the patients waiting for the hematopoietic stem cell transplantation (HSCT) in five Brazilian Centers to identify oral needs prior to HSCT.

Methods: Patients enrolled in this study were submitted to a dental clinical evaluation whilst they were awaiting for HSCT, performed by a dentist from the participating Institution. Demographic and medical data were collated together with, gingival (GI) and plaque (PI) indexes and index of decay missed and filled teeth (DMFT) were evaluated. These indexes are indicators of oral health according to the World Health Organization (WHO).

Results: During the period between April 2011 and April 2012, 101 (73 male and 48 female) patients were enrolled in this prospective study at five HSCT Brazilian Centers. Underlying diseases comprised 25 multiple myeloma, 24 non-Hodgkin lymphoma, 19 acute lymphoblastic leukemia, 16 acute myelogenous leukemia, 13 severe aplastic anemia, 11 Hodgkin lymphoma, six chronic myelogenous leukemia, three myelodysplastic syndrome, one testicular tumor, one retinoblastoma, one myelofibrosis and one chronic lymphoblastic leukemia. Median age was 40 years (range: 4-67). At the time of the survey, patients presented mean GI = 0.8, mean PI = 1.2. DMFT index were evaluated in 104/121 patients and showed mean of 16.1.

Conclusion: Patients undergoing HSCT need comprehensive oral care in Brazil due a poor oral health at the time of transplantation, to avoid possible infections secondary to myelosuppression and mucosal barrier injury.

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Relevance: The patients' status prior-HSCT may lead to protocols of dental treatment before HSCT suggesting an important role in the maintenance of oral integrity. Prior dental intervention can lead a better quality of life and improve the results of transplantation, reducing time of mucositis and infections.

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Malondialdehyde and sialic acid levels in OLP and OLCR Patients

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Objective: Increased reactive oxygen species (ROS) and lipid peroxides have been implicated in the pathogenesis of inflammatory skin disorders. We previously reported an increased oxidative stress and imbalance in the antioxidant defense system in biological fluids of patients with oral lichen planus (OLP). The aim of this study was to evaluate malondialdehyde, which is as an important indicator of lipid peroxidation both *in vitro* and *in vivo* for various diseases, and sialic acid levels, which are found in autoimmune inflammatory diseases, in patients with OLP and denture related oral lichenoid contact reactions (OLCR) using serum and salivary samples and to compare these biomarkers with a group of healthy subjects.

Patients and methods: Thirteen recently diagnosed patients with OLP (mean age 54.62 ± 9.59), 25 patients with OLCR (mean age 50.84 ± 10.65) and 18 healthy controls (mean age 49.22 ± 11.11) with matched age, sex and periodontal status were recruited to the study. The protein-bound lipid peroxidation product malondialdehyde (MDA) and sialic acid levels in both serum and saliva were determined. Additionally, salivary flow rate (SFR) and buffering capacity (BC) were estimated.

Results: MDA levels in serum were 4.41 ± 1.55 for OLP, 6.59 ± 11.04 for OLCR and 2.66 ± 0.56 for healthy control group ($P = 0.0001$). MDA levels in saliva were 1.85 ± 0.98 for OLP, 1.81 ± 0.81 for OLCR and 1.36 ± 0.54 for healthy control group ($P = 0.09$). Sialic acid levels in serum in patients with 87.76 ± 14.35 for OLP, 81.40 ± 15.96 for OLCR and 69.42 ± 5.76 for healthy control group ($P = 0.0002$). Sialic acid levels in saliva in patients with 6.18 ± 2.70 for OLP, 6.50 ± 3.01 for OLCR and 3.34 ± 1.13 for healthy control group ($P = 0.0003$).

Conclusions: The findings of this study suggest both OLP and OLCR have higher lipid peroxidase levels compared to healthy controls although these with the same clinical and histopathological features have different etiopathogenesis patterns.

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Effective use of a sodium-hyaluronate spray formulation in oral mucositis

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Background and aims: Oral mucositis (OM) is one of the most frequent and potentially severe acute side effect of non-surgical cancer therapy which often leads to significant morbidity, mortality and decreased quality of life. Today a standard and universally accepted management strategy to prevent and treat it does not exist. Given the key role played by connective damage in its pathogenesis, the use of a compound which promotes the extracellular matrix regeneration could be a valid therapeutic strategy. In this regard, the use of hyaluronic acid, that plays an important role in oral tissue healing by means of several mechanisms, has been showed to provide good results in managing OM.

The aim of this open clinical trial is to assess the effects of a spray compound containing a pool of collagen precursor synthetic aminoacids (l-proline, l-leucine, l-lysine and glycine) combined with sodium hyaluronate in the treatment of OM.

Materials and methods: Fifty-four patients with OM were consecutively and unselectively recruited. The treatment efficacy was evaluated on (i) pain score, (ii) clinical resolution index (CRI) and (iii) WHO Mucositis scale recorded at times T0 (baseline), T01 (2 h), T1 (24 h), T2 (72 h), T3 (7 days) and T4 (14 days).

Results: The application of the spray showed a significant reduction in pain after only 2 h compared with baseline measurements ($P < 0.0001$). A progressive reduction of pain through the 2 weeks was also noted ($P < 0.0001$). Patient lesions treated with the spray also significantly improved after 72 h of treatment both in terms of CRI ($P = 0.0186$) and as WHO Mucositis score ($P < 0.0001$).

Conclusions and relevance: Although further studies are recommended, our findings confirm that spray formulation may offer rapid and effective pain management aiding a fast mucosal wound healing with consequent improvement of the ability to eat and drink which usually compromises patients suffering from OM.