

B102**Topical photodynamic therapy in oral verrucous hyperplasia: a systematic review**

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Objectives: The aim of the review was to assess the effectiveness of topical photodynamic therapy with 5-ALA in oral verrucous hyperplasia.

Material and methods : Inclusion criteria were: topical photodynamic therapy with 5-ALA in oral verrucous hyperplasia should be used, according with Tsai protocol (635 nm laser light or LED red light at 635 nm used once a week, five 3-min and one 100-seconds irradiations, separated by five 3-min rests for a total of 1,000 seconds; fluence rate: 100mW7 cm² ;light exposure dose, 100 J cm⁻²),with 5-ALA (20% ALA gel form) as photosensitizer. The healing of the lesion should be reported; a minimum of 5-months follow-up, published in English. Outcome measure were: complete response (CR), partial response (PR), no response (NR) measured clinically. Medline, Embase were searched from December 1998 to December 2015 and handsearching was performed. The PRISMA statement for improving the quality of systematic review was followed.

Results : Of the six potentially eligible studies, we included four studies. Two studies were excluded because the lesions treated were included in further studies. The healing of the lesion was: 100% CR.

Conclusions : Within the limitation of the present systematic review the analysis of the clinical data of the selected studies suggests that 5-ALA PDT is very effective in the treatment of oral verrucous hyperplasia. This could be due to the epithelial structure of the lesions. Further studies have to be conducted to confirm this data.

Relevance : in the clinical practice, topical PDT, with 5-ALA, could be used as a treatment for oral verrucous hyperplasia, as alternative to surgery.

B103**Distribution of prosthesis-related oral mucosal lesions**

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Background: Oral lesions in prosthesis wearers, even fixed or removable, constitute a heterogeneous group of tissue changes, both with regard to pathogenesis, clinical and histopathological appearance. Prosthesis may be the direct cause of these conditions, due to changing environmental conditions of the oral cavity. The aim of this study was to determine the distribution of oral mucosal lesions among prosthesis wearers attending to the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, University of Istanbul.

Materials and method: Dental records of 582 prosthesis-wearing patients, who attended our clinic with the complaint of oral mucosal lesions, in the period between January 2014 and February 2016, were retrospectively reviewed for prosthesis-related oral mucosal lesions (PROMLs). Patients who had full-filled questionnaire form which included the following variables: Patient's personal data (name, age, gender, medical history), type of prosthesis worn, period of using that prosthesis, type and material of prosthesis, and diagnosed oral mucosal lesions were included in the study. Data collected were analyzed using the SPSS program.

Results: Of the 582 patients, 14.26% had only complete-removable denture prosthesis (CRDP), 28.35% had only fixed prosthesis (FP), 9.62% had only partial-removable denture prosthesis (PRDP) and 47.77% had CRD/PRD/Fixed prostheses. Oral lichenoid reactions were the most common type of lesion detected, followed by fibroma, oral ulcers and oral cancer in fixed prosthesis wearers. Candidiasis was the most common type of lesion detected and followed by denture stomatitis, epithelial hyperplasia, angular cheilitis and oral cancer in complete and/or partial denture wearers.

Conclusion: The distribution of PROMLs in our study group seems to be comparable to those in other studies. The type of PROMLs were found different in FP wearers and CRDP-PRDP wearers. Our results emphasize that denture wearing even fixed or removable have some relationship with the presence of oral mucosal lesions.

B104**Correlation between salivary markers of oxidative stress in chronic periodontitis**

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Introduction: Clinical studies have shown an association with periodontitis and salivary markers of oxidative stress. This association is currently limited to the population level and none of the widely used markers can be applied for individual diagnostics.

Interventional studies indicate that antioxidant treatment could prevent or slow-down the progress of periodontitis.

The aim of the study was to evaluate the correlation between salivary markers of oxidative stress among patients suffering from Chronic Periodontitis and indicate the main antioxidants.

Materials and method: In the saliva of 18 patients with Chronic Periodontitis the total ferric reducing ability of plasma (FRAP), concentration of uric acid, concentration of total glutathione and activity of glutathione reductase were measured.

Results: There was a strong correlation between the concentration of uric acid, FRAP-a level ($r = 0.96$, $P < 0.001$) and glutathione concentration ($r = 0.80$, $P = 0.003$). Similar correlation was observed between FRAP and glutathione level ($r = 0.74$, $P < 0.01$). Activity of glutathione reductase correlated only with the glutathione concentration ($r = 0.71$, $P = 0.013$).

Conclusions: Obtained results revealed strong correlation between glutathione and antioxidant defense parameters, small molecules like FRAP and uric acid and enzymatic like activity of glutathione reductase. High correlation between FRAP and uric acid may suggest that the uric acid is the main small molecule antioxidant in the saliva of patients suffering from Chronic Periodontitis. Due to the small sample, the results should be treated as initial.

B105**Role of TLR4 and host-microbial interactions in OLP pathogenesis and lichen-related OSCC**

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Objectives: Oral lichen planus (OLP) is a mucocutaneous chronic inflammatory condition mediated by a complex signalling network between keratinocytes and sub-epithelial lymphocytes.

Moreover, OLP occurs in constantly renewing epithelium continuously exposed to commensals. Also oral squamous cell carcinoma (OSCC) is associated to a particular inflammatory microenvironment. Epithelium-specific signals can activate the inflammatory process via Toll-like Receptors (TLRs), a family of receptors expressed in B-lymphocytes, monocytes and epithelial cells. Up to now 13 TLRs have been identified including Toll-like receptor 4 (TLR4), with a particular ability to respond to most oral commensal microorganisms. The aim of the study was to evaluate the expression of TLR4 in OLP and in OSCC both associated or not to OLP.

Methods: We have analysed 19 cases of mucocutaneous OLP, 10 cases of OLP-associated OSCC, 53 cases of OSCC not related to OLP, and 67 cases of mucosa surrounding OSCC not related to OLP. Expression of TLR4 was determined by immunohistochemistry with LSAB-HRP technique.

Results: TLR4 was moderately expressed in oral mucosa surrounding OSCC (mean: 28.5) and showed higher level of expression in OSCC not related to OLP (mean: 70.6). OLP revealed elevated TLR4 expression in the affected epithelium (mean: 54.8) and a consequent strong up-regulation in related OSCCs (mean: 83.5). These differences were statistically significant ($P < .001$).

Conclusions: In this study we demonstrated two strong associations: the first between TLR4 up- regulation and lichen; the second between TLR4 over-expression and OLP associated OSCCs.

Relevance: Collectively, our data support a critical role for the host-microbial interactions and TLR4 in OLP pathogenesis and lichen-related oral carcinogenesis.

B106**Evaluation of blood mercury levels in dental students and dental professionals**

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For more than 200 years dental amalgam has been a reliable restorative material because of its durability, longevity, effortless handling and low cost. The World Health Organization states that there is no safe mercury level, meaning that no amount of mercury, not even one atom is safe. It's a scientific fact that mercury is continuously being released