

Abstract

Evaluation of salivary and serum oxidative stress in lichen planus using malondialdehyde

Introduction: Identifying the mechanisms involved in oral lichen planus such as oxidative stress can be effective in the diagnosis, control and treatment of this disease, but studies in this field with different methods have reported contradictory results. Therefore, this study was conducted with the aim of evaluating the oxidative stress of saliva and serum in oral lichen planus using malondialdehyde.

Materials and methods: This case-control study was conducted between two groups of people including patients with oral lichen planus (25 people) and healthy people (25 people). 1.5 ml of fasting saliva was collected by unstimulated saliva method. On the other hand, blood samples were prepared from the patient and after centrifugation, the patients' serum was evaluated. MDA and salivary levels were estimated by UA TBA thiobarbituric reaction using TCA trichloroacetic acid and analyzed using Yeoman-Whitney and Chi-square statistical tests with SPSS version 26 software, the significance level was considered less than 0.05. $P > 0.05$).

Results: In this study, 25 people in the healthy group (50%) and 25 people with lichen planus were examined, the number of men in the lichen planus group (48.1%) and in the healthy group (51.9%) and the number of women in the group But the oral lichen plan was (52.2 percent) and in the healthy group (47.8 percent), there was no statistically significant difference in the number of men and women in the two investigated groups ($P=0.777$). Also, the mean and standard deviation of the age in the lichen planus group (47.84 ± 10.33) and in the healthy group (43.72 ± 5.37) were obtained, and no significant difference was observed in the age of the two investigated groups based on age ($162 / 0=P$). The mean serum MDA in lichen planus group (16.02 ± 11.88) was higher than the control group (8.47 ± 4.88) ($P=0.023$); Also, the average salivary MDA in lichen planus group (3.11 ± 3.05) was higher than the control group (1.22 ± 0.675) ($P=0.001$).

Conclusion: According to the results, it seems that oxidative stress plays an effective role in the etiopathogenesis of oral lichen plan.

Keywords: Oral lichen plan, oxidative stress, malondialdehyde.