

STRESS RELATED ORAL MANIFESTATIONS IN A GROUP OF PATIENTS FROM CONSTANȚA COUNTY

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ABSTRACT

The purpose of this article is to evaluate the frequency of oral manifestations in patients with an increased level of stress. The study group included 52 patients from Constanța who arrived for specialized consultation. The patients were examined using conventional light and a clinical diagnosis was formulated based on the examination and findings. Following the clinical examination and the correlation with the anamnesis, the following types of manifestations of the oral mucosa were diagnosed: traumatic ulcers 33.33%, burning mouth syndrome – 17.65%, xerostomia – 13.73%, recurrent aphthous stomatitis – 11.76 %, herpetic oral infection – 11.76%, oral lichen planus – 7.84% and mucocoele – 5.88%. Patients aged between 40-50 years presented the most frequent traumatic ulcers of the oral mucosa - 23.08% of all detected oral lesions. The most frequently reported oral manifestations detected in the male sex are represented by: traumatic ulcers - 21.15%, burning mouth syndrome - 11.54%, herpetic infections and xerostomia - 7.69%. Oral mucocoele - 3.85% and recurrent acute aphthous stomatitis - 5.77% were detected the most in the female sex. All cases of oral lichen planus were identified exclusively in female patients. Bruxism was identified in 21 patients, over half being diagnosed in men, while myofascial pain dysfunction syndrome was detected in 11 patients, of which 7 were female. Stress can be a contributing factor in the appearance of oral manifestations, among which oral lichen planus is a premalignant lesion. All oral manifestations detected in patients exposed to stress can affect the functionality of the orofacial system and the quality of life.

Key words: oral manifestations, conventional light, stress, oral disorders

INTRODUCTION

Stress is defined as the physical, mental or emotional response to events that cause bodily or mental tension. The human body undergoes a series of chemical reactions during stress, which affect different organs, which allows the individual to endure these unpleasant stimuli. As a side effect of prolonged exposure to these chemical reactions, the body develops various endocrine / immunological /homeostatic / metabolic disorders. [1,2]

There is a consensus in the literature that psychological disorders, such as anxiety and psychological stress, could influence the occurrence of oral lesions. A great importance is given to the investigation of mental disorders as possible causes of

changes in the orofacial system. [3,5]

The level of stress has a direct influence on diseases of the oral mucosa, studies have shown that high levels of stress are correlated with xerostomia. [6] Other studies have suggested that psychological disorders such as stress and anxiety may play a role in the onset and recurrence of recurrent aphthous stomatitis. [7,8] Oral lichen planus can also appear 1-2 weeks after severe emotional stress [9,10]. Oral lichen planus, haptic ulcers, burning mouth syndrome, and myofascial pain dysfunction syndrome are the most common oral lesions associated with stress. [11]

Chronic lip and cheek biting (morsicatio buccarum) is most often seen in stressed or anxious individuals, and the clinical

appearance of the oral linea alba has an increased importance in patients with bruxism. [12,13]

The purpose of this article is to evaluate the frequency of oral manifestations in patients with an increased level of stress.

MATERIAL AND METHODS

The study group included 52 patients who presented for specialized consultation between January 1, 2019- October 30, 2023 in Oral Pathology Department of Dental

3. RESULTS AND DISCUSSIONS

The study group included 52 patients 28 male and 24 female patients were included in the study group. Following the clinical examination and the correlation with the anamnesis, the following types of manifestations of the oral mucosa were diagnosed: traumatic ulcers 33.33%, burning mouth syndrome – 17.65%, xerostomia – 13.73%, recurrent aphthous stomatitis – 11.76 %, herpetic oral infection – 11.76%, oral lichen planus – 7.84% and mucocele – 5.88%.

The minimum age of the patients included in the study was 18 years, and the maximum age was 50 years. In order to compare the results more efficiently, the group was divided into 3 groups: 18-30 years, 30-40 years and 40-50 years.

Comparing the results by age category showed that: xerostomia (9.62%), mucocele (3.85%), herpes viral infections (5.77%) and burn syndrome (7.69%) was the most frequently identified in patients aged between 40-50 years. In the age group of 30-40 years, the most identified oral

Medicine Faculty, Ovidius University of Constanța. The inclusion criteria were related to a good general health, exposure to stress factors and the presence of oral lesions. Patients under the age of 18, smokers and pregnant women were excluded. All patients were investigated through a complete anamnesis to establish the level of stress to which they are exposed. The patients were examined using dental unit conventional light and a clinical diagnosis was formulated based on the examination and findings.

manifestations were: oral lichen planus (5.77%), and recurrent aphthous stomatitis (7.69%). Oral lichen planus is an immunologically mediated disease, and stress is a factor in exacerbating the disease. [14] Oral lichen planus exacerbation has been linked to periods of psychological stress and anxiety. [15]

Patients aged between 40-50 years presented the most frequent traumatic ulcers of the oral mucosa - 23.08% of all detected oral lesions.

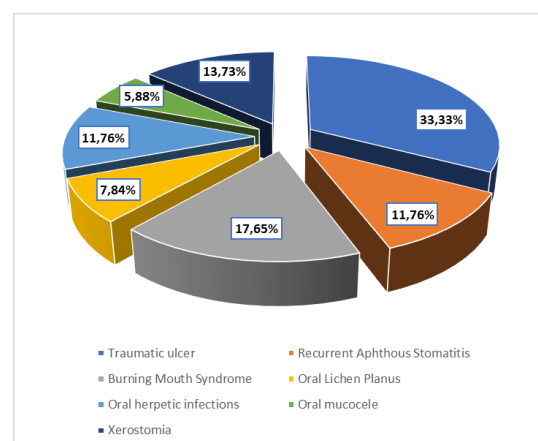


Figure 1. Percentage distribution of oral manifestations

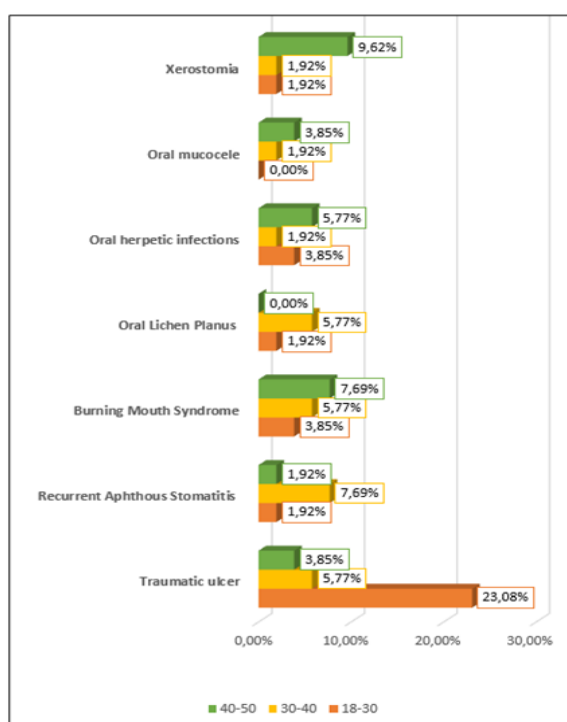


Figure 2. Percentage distribution by age category of oral manifestations

The comparison of the results by gender revealed the following: the most frequently reported oral manifestations detected in the male sex are represented by: traumatic ulcers - 21.15%, burning mouth syndrome - 11.54%, herpetic infections and xerostomia - 7.69%. Herpetic infections occur due to physical trauma or emotional stress that leads to specific lesions of the oral and labial mucosa. Emotional stress acts by preventing the antibodies from acting locally on the oral mucosa. [16] Gholmai et al. showed that psychological stress has a significant effect on reducing salivary flow. In addition, Hugos et al, Berghadal and Berghdal and Matos Gomas et al established important correlations between stress and anxiety and xerostomia in their studies. [17] Oral mucocele - 3.85% and recurrent acute aphthous stomatitis - 5.77% were detected the most in the female sex. All cases of oral lichen planus were identified exclusively in female patients. In patients diagnosed with recurrent acute aphthous stomatitis, symptoms were most strongly correlated with gender. Recurrent acute aphthous stomatitis is a more common disease in

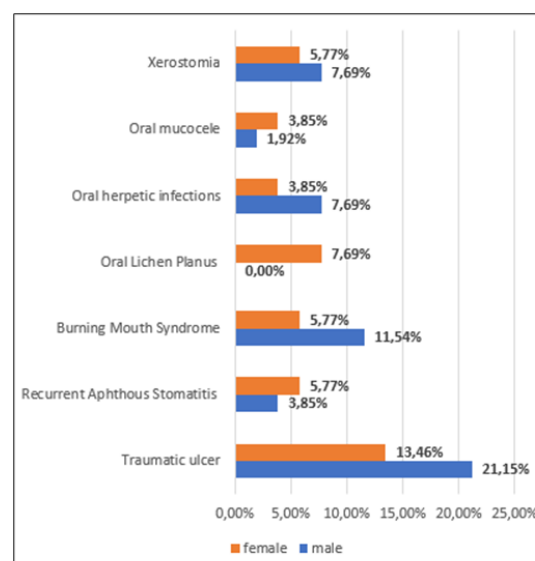


Figure 3. Percentage distribution by gender of oral manifestations

women than in men, as we found in this study.

The analysis of the presence of bruxism and myofacial pain dysfunction syndrome highlighted that bruxism was identified in 21 patients, over half being diagnosed in men, while myofacial pain dysfunction syndrome was detected in 11 patients, of which 7 were female. A study by Kaur et al. demonstrated that bruxism has a higher prevalence in patients with mental disorders than in normal individuals, being more common in men than in women, and was predominantly observed in the 31-40 age group. [18] Stress is defined as the human body's response to a need, which can have a negative impact on the body, such as myofacial pain dysfunction syndrome. [19]

Table 1. The prevalence of patients with bruxism and myofacial pain dysfunction syndrome by gender.

	male	female
Bruxism	13	8
Myofacial pain dysfunction syndrome	4	7
Total	16	11

4. CONCLUSIONS

Stress can be a contributing factor in the appearance of oral manifestations, among which oral lichen planus is a premalignant lesion. All oral manifestations detected in patients exposed to stress can affect the functionality of the orofacial system and the quality of life. The age most affected by the appearance of oral manifestations secondary

to exposure to psychological stress is 18-50 years, which corresponds to the socially and at work active age category. Dental professionals must consider the reduction of psychological stress in the therapy of the various oral manifestations identified in this category of patients.

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