



REVIEW ARTICLE

STRESS RELATED ORAL DISEASES- A REVIEW

^{*},¹Dr. Neha Bansal and ²Dr. Richa Bansal

¹Assistant Professor Dept of Oral Medicine and Radiology, Dr H.S Judge Institute of Dental Sciences Chandigarh

²Reader Dept of Oral and Maxillofacial Pathology, Seema Dental College, Rishikesh

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ABSTRACT

With the increasing work load in our daily lives and the urgent and fast need to accomplish our goals, a lot of stress has seeped into our lives. Stress is defined as a physical, mental or emotional response to events that causes bodily or mental tension. Every part of the body is affected due to stress; be it minds body and even our oral cavity. It can either be direct expression of emotions or conflicts, or can be indirect result of emotional problem. The oral mucosa is highly reactive to psychological influences. Mouth is directly or symbolically related to major human instincts and passions. Various systemic manifestations of stress are headache, hypertension, gastric ulcer and diabetes mellitus etc. However aim of this article is to highlight various stress related oral problems which includes dental caries/erosion, gingivitis/periodontitis, Bruxism/Clenching of jaw, Myofascial pain Dysfunction syndrome, Aphthous ulcers, Oral lichen planus and Burning mouth syndrome etc.

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INTRODUCTION

Our mouth is the mirror of our health and it might be said that numerous diseases which affect our body may be manifested in the mouth. It's important not only to recognize the signs that can bring about changes in oral health, but also to treat the condition and relieve the stress associated with bringing on the condition. It is very important for a dentist to recognize early warning signs in predicting the diseases.

Stressors: These are situations or activities which cause physical, emotional, or psychological trauma/stress. Few examples are; work or school, family or relationship difficulties, legal or financial problems, health or illness issues, negative self talks and/or unrealistic expectations etc (http://en.wikipedia.org/wiki/stress/stressors/stress_management).

Stress related oral conditions

Lichen planus: Described by Erasmus Wilson in 1869, it is an immunologically mediated mucocutaneous disorder which often affects oral mucosa. A substantial body of evidence supports the concept that emotional stress is a major etiologic factor in this diseases (McCarthy, 1980).

Oral lesions present typical radiating white striae (wickamstriae) and erythematous atrophic mucosa at the periphery of well-demarcated ulceration. It is autoimmune condition with psychological stress as a major risk factor. Symptomatic treatment can be provided by topical analgesics or antihistamine rinses or more specifically by use of topical steroids (Neville, 1989 and AtessaPakfetra, 2009). A retrospective study of 420 Iranian patients also reported that stress was one of the factors in atleast 50% of patients (AtessaPakfetrat, 2009).

Recurrent oral ulcerations (aphthous ulcers)

It is a common disease of oral mucosa characterized by the appearance of painful ulcers which heal and re-occur after a few days or weeks. The etiology of these ulcers is not clearly understood but emotional stress/immune responses are involved in the pathogenesis of these recurrent ulcers and a psychoanalytic etiology is evident in many cases. Iron, vitamin B12, folic acid deficiency is considered as predisposing factors. The successful treatment response of AS depends upon the positive psychologic approach. Antibiotic (especially Tetracycline) mouthwash, topical steroid or topical antiseptic gel and multivitamin tablets can be used for symptomatic treatment of these aphthous ulcers (DrBhushan, 2014).

Bruxism

Grinding teeth is a neurotic habit that usually occurs during sleep. It may result in wear of teeth, trauma to periodontal

***Corresponding author: Dr. Neha Bansal,**
Assistant professor Dept of Oral Medicine and Radiology, Dr H.S Judge Institute of Dental Sciences Chandigarh

tissues, and occasionally facial musculature and temporomandibular joint structures (McCarthy, 1980 and Bailoor, 2005). There are two main types of bruxism; one which occurs during sleep (sleep bruxism) and other which occurs during wakefulness (awake bruxism). Dental damage may be similar in both types, The dental examination shows mild to severe attrition of the occlusal surfaces of the teeth. Symptoms are hypersensitive teeth, aching jaw muscles, and headaches. Bruxism may even cause damage or breakage of teeth and dental restorations such as crowns and fillings. Sleep disturbances and behavioral/psychiatric disorders are among etiological factors. This condition can be managed by stress control programme, removal of occlusal interferences wearing night guard/occlusal splints or restoring vertical dimension of occlusion (Makino, 1992).

Dental caries/dental attrition/dental erosion

Poor oral hygiene maintenance can lead to dental caries where as parafunctional habits like nail biting/pen or pencil chewing etc can lead to dental attrition. Psychological stress also leads to indigestion or eating problems and such individuals often complain of vomiting or regurgitation which causes dental erosion on chronic exposure (Marcenes, 1992).

Burning mouth syndrome

It is associated with burning sensation of tongue, lips and oral mucosa. This condition is often associated with sleep disturbances and behavioral/psychiatric disorders. It can be controlled symptomatically with topical anesthetic gel [mucopain gel-5% Xylocaine] along with topical antihistamine application [5% diphenhydramine hydrochloride].

Temporomandibular Dysfunction

Stress can produce temporomandibular dysfunction (TMD) symptoms when it causes patients to clench, brux their teeth more frequently, either at night or during the day. Masticatory muscle spasms and pain may result. Other known causes of TMD symptoms include injury to the temporomandibular joint from blunt force to the face, arthritis, joint overload, or repetitive loading (usually because of bruxism or grinding of the teeth). TMD affects both men and women. The incidence for women was significantly higher than that for men (1.5%) (GEORGIA).

Myofascial pain dysfunction syndrome

MPDS is a muscle-contraction headache-like pain of the face. Patients with MPDS reports psychological symptoms such as Frustrations, Anxiety, Depression, Hypochondriasis and Anger. Maladaptive behaviors such as pain verbalization, poor sleep, dietary habits. The signs and symptoms of MPDS are dull pain in the ear or preauricular region which is a unilateral that commonly worsens on awakening. There is tenderness of one or more muscle of mastication on palpation and limitation or deviation of the mandible on opening. Laskin Psychophysiologic theory states that MPDS is primarily a result of emotional rather than occlusal and mechanical factors (DrBhushan, 2014). So the stress induced pshycological factors should first betaken care of (David, 1972).

Xerostomia

Saliva plays a significant role in the maintenance of oral and general health. Xerostomia is the abnormal reduction of saliva.

It is very commonly seen in psychiatric patients. Dryness of mouth affects the quality of life.

DISCUSSION

Stress has become an integral part of our lives these days. It is an unavoidable process. Various oral diseases related to stress need to be maintained. First and foremost is to achieve to a correct etiological factor of the disease and then is the stress management therapy along with the symotomatic relief. Stress Relief Strategies: These are Body Relaxation Exercises (breathing techniques/guided imagery); Physical Exercise (yoga/routine work out); Meditation; Counseling (talk therapy/ life coaching) and Social Support. Other suggested methods to avoid and manage stress are good nutrition/changing perceptions and expectations, break jobs/tasks into manageable parts, set reasonable/realistic goals, don't compromise your values/beliefs. Hence psychological management should be taken into consideration when treating patients with these psychosomatic disorders in various oral mucosal diseases. They must be referred to psychological counseling and anti-anxiety management.

Conclusion

To conclude it is the prime sole role of a dentist to take a proper history and essential investigations so as to ensure correct diagnosis of the etiological factor and thus in successful treatment plan. Clinical subjects free from stress must be properly differentiated as other causes like immunological, hormonal and metabolic disturbances may be the etiological factor in these subjects. The professional obligation of a dentist is to follow up for these patients so as to build up a faith along with the management of oral manifestations.

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