

Psychological Factors in Oral Lichen Planus

Abhishek Ranjan Pati¹, Rajat Panigrahi¹, Smita R. Priyadarshini¹

¹Reader, Department of Oral Medicine & Maxillofacial Radiology, Institute of Dental Sciences, Siksha O Anusandhan (Deemed to be University), Bhubaneswar, Odisha India

Abstract

It has been known for centuries that mental/emotional factors are correlated to numerous physical diseases. Traditionally we regard mind (psyche) and body (soma) separate but where and how do they interact? The very idea of psychological medicines was told by Sigmund Freud, who used conversion hysteria in explaining the effects of emotional disparity turned into bodily or somatic symptoms

Keywords: Oral Lichen Planus, Psychological Factors, Oral Health.

Introduction

Fitness is a state of total “physical”, “mental” and “social” wellbeing and not just the lack of sickness or illness.¹ “Oral health” is essential to all-purpose health and also a significant part of universal physical condition. “Psychosocial factors” are necessary and essential for health and are important in disease.^{1,2} Psychosocial factors encompass both psychologic issues (those that arise predominantly from within the individual) and sociologic issues (external factors). Mental/emotional factors are connected to numerous physical diseases. Traditionally we regard mind (psyche) and body (soma) separate but where and how do they interact? The very idea of psychological medicines was told by Sigmund Freud, who used “conversion hysteria” in explaining the effects of emotional disparity turned into bodily or somatic symptoms.³ In many illnesses, there is an interplay of psychological and physical factors. Frequently psychological disorders present in the physical guise of there may be a strong underlying psychological element in a somatic condition. It is now well recognized that psychological states can produce somatic symptoms, anxiety rates are shown to cause autonomic arousal, heightened muscle tone and over-breathing and hence a wide range of bodily symptoms. Depressive illness can lead to weight loss, tiredness, loss of appetite and pain or an existing pain can be aggravated. However, patients attribute these somatic syndromes to serious physical disease. The oral mucosa is very sensitive to psychological events and oral mucosal lesions can occur as a result of psychiatric influences.

Psychological disorders may be manifested as atypical odontalgia, TMJ disorders, aphthous stomatitis, burning mouth syndrome.”^{4,5} In chronic pain syndromes, there is often a psychological behavioral overlay of symptoms that come part and parcel of the disease. Treating the psychological and behavioral problems with physical aspect may increase the chances of a successful therapeutic outcome.⁶

Classification: “Psychosomatic disorders” are widely classified depending upon the presence of tissue injury or not.¹⁰ Under the category “Physiological malfunction arising from mental factors”, these are regulated through the autonomic nervous system. Included in this group are breathing disorders, such as hyperventilation and psychogenic cough; cardiac problems, pruritis. The psychological factors are related to a disease succession, like asthma, dermatitis, eczema, stomach ulcer and ulcerative colitis.

“Zegarelli E.V., Kutscher A.H. and Hyman” G.A. (1978) Classified “psychosomatic disorders” as¹¹ Psychoneurotic disorder, Psychophysiological disorder, Personality disorder, Psychotic disorder

Classification:

- Shklar et al. (1980)¹²: Oral psychosomatic diseases; lichen planus; recurrent aphthous stomatitis; “glossitis and stomatitis areata migrant” psychological factors can be aetiological factors in oral diseases like: “erythema multiforme, Mucous membrane pemphigoid” and Chronic periodontal disease.

- emotional stress serving as a contributing factor in “herpes labialis, Necrotizing ulcerative gingivitis
- neurotic habits leading to leukoplakia, “biting of the oral mucosa, (self-mutilation), physical/mechanical irritation, dental/periodontal disease produced by “bruxism”, “neurotic oral symptoms, glossodynia (glossopyrosis), dysgeusia, mucosal pain”

Bailoor and Nagesh (2001) classified oral psychosomatic disorders as ¹³Pain associated disorders, MPDS, “atypical facial pain, atypical odontogenic pain”, diseases related to altered oral sensation, burning mouth, xerostomia, idiopathic dysgeusia, miscellaneous, oral lichen planus,” recurrent aphthous ulcers, psoriasis, erythema multiforme, hypochondriac disorder”.

Review of Literature on Oral lichen planus:

Oral lichen planus is a common chronic immunologic inflammatory mucocutaneous disorder. Many authors have concluded the association of psychological stress in “oral Lichen planus”. Kovesi G. and Bancozy J. (1973)¹⁶ were made the diagnosis of oral lichen planus on 326 patients between 1960-1969, and they found psychological factors appeared to be an important cause. Shafer W.G. et al (1983)¹⁷ stated that lichen planus was associated with several stress-related medical disorders such as diabetes and hypertension. Lowenthal U., Pisontis (1984)¹⁸ examined 49 patients with clinically diagnosed oral lichen planus. In erosive and bullous lichen planus, stressful events happened before the occurrence of lesions. Similar findings were shown by Scully M. and El-Kom M. (1985)¹⁹, Hampt B. Goronc (1987)²⁰, Humphris G., Field E.A. (1992)²¹, Sebastian J.V. Bogan (1992).²² McCartan B.E. (1995)²³ studied 50 subjects with oral lichen planus for any “anxiety and depression” and for behavior problems. Nervousness level, as considered on the “hospital anxiety and depression (HAD) scale”, was eminent in 51% of subjects, while depression scores, were low in everyone. Sugerman P.B. et al (1995)²⁴ assessed the probable part of stress derived HSP (Heat Shock Protein) expression using avidin-biotin complex immunochemistry with an “anti HSP-70” polyclonal antibody, in normal oral mucosa sections of OLP, “nonspecific oral ulceration” and dysplastic OLP. They established that there was a statistically significant difference in vertical and horizontal staining allocation when other groups compared with OLP. Chaudary S (2004)²⁷ Studied the importance of psychological stressors in patients with oral lichen planus.

Conclusion

The oral cavity is extremely responsive to psychologic stimulus, and in few subjects oral problems may be a straight appearance of psychological issues, while in some factors problems of the oral mucosa may be the circuitous effect of an emotional conflict. The fundamental concept in mental medicine was initially proposed by Freud, who coined “conversion hysteria” in unfolding the response in which disturbing conflicts are distorted into physical or somatic symptoms. Since the oral tissues have a high psychologic potential, oral symptoms are common psychosomatic manifestations.

The oral mucosa bears on an obvious role as on erotogenic zone, and oral manifestations resulting from emotional disturbance should be reasonably common. The overall relationship of psychologic factors to oral mucosal disease maybe representing different ways in which emotional stressful stimuli act on oral mucosal target sites.

A considerable evidence supports that psychological stress is a chief causative reason in these 3 disorders. In lichen planus and glossitis areata, burning tongue, and burning sensations of the oral mucosa are invariably neurotic symptoms and indicative of underlying psychologic problems, which are often severe and require appropriate psychiatric management.

“Burning” symptomatology in the absence of clinical disease must be considered to have a neurotic or neurologic origin. We should point out to the enduring that “neurotic is normal”, and everybody is anxious to some extent, but that every person intuitive responds to emotional stress in different ways. Patients with oral features become visible to be suffering from sadness or other psychological disorders that require a mental status evaluation and psychiatric management.

The word “phobia”, which means fear in Greek, are several emotional and physiological problems that can range from grave disabilities to frequent fears to minor quirks. All fears and phobias, cancerphobia is shaped by the unconscious mind as a defensive mechanism. Several times, there may be an incident relating to oral cancer and emotional conflict, while the initial channel may have been a real-life scare of some type, the condition can also be triggered by events like natural disaster, TV or perhaps seeing someone else experience trauma. It is an excessive and unreasonable fear of cancer in patients who have either a relative or friend who is suffering from

cancer or who themselves have a chronic oral lesion such as an ulcer, any growth or patch in the oral cavity which defies diagnosis or treatment.

When we focus on the etiology of the disease, many patients were relieved to know that the lesions were not due to some infection or neoplastic disease but as a result of “disease of civilization”. Future studies to associate the psychological disorders with the immunological basis of the disease needs to be done for appropriate management and treatment planning.

Conflict of Interests: None

Ethical Permission: Approved

Funding: Nil

References

1. Park K. Textbook of preventive and social medicine. 17th Edition. Banarsi Das Bhanot publishers 2002.
2. Steinberg BJ, Hilton IV, Iida H, Samelson R. Oral health and dental care during pregnancy Dent Clin North Am. 2013;57(2):195–210.
3. Breuer. J. Freud. S. Studies in Hysteria, Boston press 1961.
4. Turk DC. Psychological and behavioral assessment of patients with TMDs: Diagnostic and treatment implications. Oral Surg Oral Med Oral Pathol Oral Radio. Endo. 1997;83:65-71.
5. Steven B et al. Is atypical odontalgia a psychological problem? Oral Surg Oral Med Oral path 1993;75:579-82.
6. Kinney RK, Robert J, et al Major psychological disorders in chronic TMD Patients. Implications for successful management. JADA; 1992:123:49-54
7. Carl A, et al. Relations of stress and anxiety to oral lichen planus. Oral Surg Oral Med Oral path;1986:61:44-46.
8. Bailoor D, Pai N. Bio psychological model of illness and oral medicine, Ganesh printers, Mangalore 2001
9. Lawrence C Kolb. Modern Clinical Psychiatry, W.B. Saunders company 1997. on
10. International Classification of Diseases (ICD-10: WHO 1993).
11. Zegarelli EV, Kutscher AH, Hyman GA. Diseases of mouth and jaws, 2nd edition, Lea and Febiger, 1978.
12. McCarthy P, Shklar G. Diseases of Oral Mucosa 2nd edition, Philadelphia 1980.
13. Bailoor DN, Nagesh KS. Oral Medicine, 2nd edition, 2001.
14. Eisen D. The therapy of oral lichen planus, critical reviews in oral biology and medicine. 1993; 4(2) : 141-158.
15. Rogers RS, Sheridan PJ, Nightingale SH. Desquamative gingivitis: Clinical, Histopathologic, Immunopathologic and therapeutic observations. J A.m Acad Dermatol 1982; 7 : 729-735
16. Kovesi G, Bancozy J. Follow up studies in oral lichen planus. Int J Oral Surg 1973;2:13-19.
17. Shafer WJ, Hine MK, Levy BM. A textbook of oral pathology. 4th Edition. Philadelphia 1983.
18. Lowental U, Pisanti S. Oral lichen planus according to the modern medical model. J Oral Med 1984;39:224-6
19. Scully C, El-Kom M. Lichen planus: Review and update on pathogenesis. J of Oral Pathology 1985; 14: 431-458.
20. Hampf BG, Malmström MJ, Aalberg VA, Hannula JA, Vikkula J. Psychiatric disturbance in patients with oral lichen planus. Oral Surg Oral Med Oral Pathol. 1987;63(4):429–432.
21. Humphris G, Field EA. Br Dental J:5-19;173:1992.
22. Bagon JV Sebastian, Milion MA., Masonet, M. Penarrocha Diago, Y. Jimenez. A clinical study of 205 patients with oral lichen planus. J Oral Maxillofacial Surg 1992; 50: 116-118.
23. Mc Cartan BE. Psychological factors associated with oral lichen planus. J Oral Pathol Med 1995; 24: 273-275.
24. Sugerman PB, Savage NW, Xu LJ, Walsh LJ, Seymour GJ. Heat shock protein expression in oral lichen planus. J Oral Pathol Med. 1995;24(1):1–8.
25. Scully C, Beyli M, Ferreiro MC, et al. Update on oral lichen planus: etiopathogenesis and management. Crit Rev Oral Biol Med. 1998;9(1):86–122.
26. Sugerman PB, Savage NW. Oral lichen planus: causes, diagnosis and management. Aust Dent J. 2002;47(4):290–297