

NON SURGICAL MANAGEMENT OF SELF INFLICTING GINGIVAL INJURY IN SCHIZOPHRENIC PATIENT

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ABSTRACT: Schizophrenia is a brain disorder that affects the way a person acts and sees the world. People with schizophrenia have an altered perception of reality, often a significant loss of contact with the reality. Some of the most common early warning signs of schizophrenia includes extreme reaction to criticism, deterioration of personal hygiene, depression, odd or irrelevant statement etc. A 24-year old female patient with similar features came to the department with the chief complaint of bleeding and receding gums; upon examination it was found that gingival mucosa in relation to maxillary right canine to first molar was lacerated. Detailed history of the patient showed that she was suffering from schizophrenia and was undergoing treatment for the same; she deliberately brushed hard on the respective region causing recession and laceration. Following diagnosis, non surgical management of the lesion was done including scaling and root planning. Four weeks after treatment, the patient was reviewed and in the follow up it was observed that the gingival lesion had resolved

KEYWORDS: Schizophrenia, self inflicting, Injury, Non surgical

INTRODUCTION

Schizophrenia is a heterogeneous syndrome characterized by perturbations of language, perception, thinking, social activity, affect and volition. The syndrome commonly begins in late adolescence has an insidious onset and often a poor outcome, progressing from social withdrawal and perceptual distortions to recurrent delusions and hallucination accompanied by significant social or occupational dysfunctions¹. The condition is also associated with behavioral problems such as personal habits including hygiene maintenance and oral hygiene practices. Gingival and periodontal diseases are one of the most common diseases affecting humans and it most commonly results from poor oral hygiene which results in the accumulation of microbial biofilms on the surfaces of the teeth². The clinical manifestations of gingival and periodontal diseases include inflammation of gingiva, bleeding on probing, formation of deep periodontal pockets and gingival recession (*exposure of the root surfaces of teeth due to apical migration of the gingival margin*)³.

Gingival recession is common in many patients, and generally is associated with periodontal disease (4), inadequate tooth brushing and repeated periodontal instrumentation,⁵ among other etiologies. Gingival recession as a consequence of regular tooth brushing has been reported⁶ and can be observed even in young

populations with well-established habits of oral hygiene⁷. Gingival recession is also associated with self-mutilation behavior which is observed in patient with psychiatric disorders. There were different self mutilation events described in schizophrenic patients including castration, enucleation of eye, amputation of hands and skin lesions⁸. Self-injurious behavior (SIB) may be defined as any behaviour, initiated by the individual, which directly results in physical harm to that individual which includes bruising, laceration, bleeding, bone fractures and breakages and other tissue damage" (Murphy and Wilson, 1985). These self-inflicted injuries are sometimes referred to as factitious injury, self-mutilating injuries and injuries due to masochistic habits. Gingivitis artefacta is deliberate self-inflicted injury of the gingiva, in which the wounds are inflicted usually by patient's fingernail. This disorder is seen mostly in younger age groups. It occurs in both major and minor forms⁹. Gingivitis artefacta in its more common, less severe form, is usually a localized lesion termed "gingivitis artefacta minor," and is usually due to some superimposed lesion or overzealous tooth brushing habits. Women rather than men, and children are most likely to exhibit this condition. This case report presents a clinical case of a schizophrenic patient who deliberately brushed hard causing recession and laceration of gingival mucosa with details regarding the diagnosis and management.

Case Report

A 27 year old female patient came to the Department of Periodontology and Implantology of Mansarovar Dental College, Bhopal (M.P.), with the complaint of pain in gums since past two months along with bleeding while brushing. Upon examination it was found that patient's oral hygiene was poor with abundance of soft and hard tissue deposits. Multiple unilateral lacerations and recessions of gingival mucosa extending from maxillary right canine to first molar beyond the mucogingival junction were observed. Grade I mobility¹⁰ was also present with respect to upper right first and second premolar and first molar. Gingival bleeding was elicited upon probing the gingival tissue. Also, oral hygiene was deficient and food debris was present. Radiographic examination showed horizontal bone loss with respect to right maxillary premolars and first molar.

History of the patient revealed that she was suffering from schizophrenia since past one year. She complained of difficulty in comprehension and disorientation followed by random episodes of irritation. Patient is under the treatment for the same, showing positive results. On thorough questioning she mentioned that she deliberately brushed hard on the respective region causing recession and laceration. (Fig.1)

Following the diagnosis, non surgical management of the lesion was done including scaling and root planing, oral hygiene instructions and psychological support. Along with this the lesion was irrigated thoroughly with povidone iodine and topical analgesic was applied. The patient returned after 10 days and adequate tissue healing was noted. Oral hygiene instructions were reviewed and the patient's tooth brushing habit was again discussed. The patient was followed for approximately 1 month postoperatively and complete tissue healing was achieved. . (Fig.2)

Discussion

There is paucity of literature on different case studies of self-mutilation in a patient suffering from schizophrenia. The group of illness conventionally referred to as 'schizophrenia' is diverse in nature and covers a broad range of perceptual, cognitive and behavioural disturbances. No one cause has been identified to date. Schizophrenia is likely to be a disease of neural disconnection caused by an interaction of genetic and multiple environmental factors that affect brain development. The illness can begin at any age but is rare before puberty. The peak age of onset is in early twenties. The symptoms that have been considered as diagnostic of the condition have been termed as first rank symptoms and were described by Kurt Schneider. They consist of, auditory hallucinations, thought withdrawal, insertion and broadcast, primary delusions, somatic passivity and tendency to inflict self injuries¹¹.

There are several classifications of gingival self-inflicted injuries in the scientific literature, but Stewart¹² divided them into *gingival artefacta minor*, which are provoked by



Fig.1- pretreatment photo graphs of the Gingival lesion



Fig.2: Post treatment photograph of the Gingival lesion

a preexisting local irritation focus, such as a mobile primary tooth or food impaction, and *gingival artefacta major*, which refers to generalized lesions of oral tissues whose causes are deeply ingrained bad habits that are hard to change.

World workshop in periodontics which was held in 1999 classified gingival disease as plaque induced and non-plaque induced gingival disease and is classified as due to thermal, chemical and physical causes. Physical injuries to gingival tissue can occur due to accidental, iatrogenic and factitious (self inflicting) occurrences. Self-inflicted injuries may be premeditated, accidental, or the result of an unconscious habit. They are still a challenge for many clinicians in diagnosis. In this case, self-inflicted gingival lesions were diagnosed as being caused by the patient's self injurious behavior due to emotional stress which was revealed after detailed conversation with the patient. If the organic basis for self-damaging behavior is tailed out, then the origin of the behavior usually is (a) the need for attention, (b) the need for sympathy, or (c) a means for financial gain or some other personal gratification¹³. Self-induced (self-inflicted) oral injuries often pose one of the more frustrating problems for the clinician. There are several important diagnostic points¹³.

1. The lesions do not correspond to those of any known disease,
2. The lesions usually exhibit bizarre configurations with sharp outlines,

3. The lesions show unusual groupings and distribution and are found in areas accessible to the patient's hand.
4. The lesions may occur singly but are usually multiple.

There are no standard methods for prevention of this self-mutilation, and appropriate preventive methods must be developed individually for each patient.

Multiple treatment possibilities have been attempted to address self-injurious behavior. Behavioral modification techniques combined with pharmacologic and psychotherapeutic therapies are most frequently used^{14,15,16}. The most important thing to be considered in the management of self-injurious behaviour is to customize the treatment according to the severity of the condition and to establish an individualized treatment plan in each case based on a comprehensive medical record evaluation^{15,17,18}. Although self-injurious behavior is quite frequent in patients with disabilities, this case drew our attention because of the size of the lesions. The gingival recession was so great that the canines and mandibular permanent first molar roots were exposed up till apical one third, recession was observed only in the buccal aspect of the affected teeth, and the interproximal gingiva was ulcerated but not destroyed.

The treatment plan includes thorough evaluation of dental and medical history of the patient followed by reassurance. After diagnosis, the patient was recalled for the non surgical management including scaling and root planing as it is required to remove the local factors and food debris, resulting in decreased inflammation and healing of the lacerated tissue. Irrigation with povidone iodine was done so as to provide an antiseptic environment preventing bacterial growth over the diseased tissue. Also, topical analgesic was applied so as to provide symptomatic relief from pain. The patient returned after 10 days with adequate tissue healing. Oral hygiene instructions were reviewed and the patient's tooth brushing habit was again discussed. The patient was followed for approximately 1 month postoperatively and complete tissue healing was achieved.

CONCLUSION

Self injurious behaviours are difficult to diagnose which may delay the treatment and there severity depends on their origin and association to underlying pathologies such as mental retardation, schizophrenia etc. Successful treatment of these lesions must be interdisciplinary and requires cooperation of the patient, relatives and physician.

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