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Case Report

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# SELF INFLICTED DENTAL INJURIES: A CASE REPORT

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**ABSTRACT**

Self-injurious behavior (SIB) is an activity in which an individual inflicts injury or harm oneself without suicidal intent. It is a common condition in dental practice but is often missed. The patient can present with various manifestations. We describe an atypical case of self-injurious oral lesion having a chief complaints of pain and swelling in upper face. On examination, foreign object was detected in mouth.

**KEYWORDS**: Self-injurious behavior, Oral presentations, foreign bodies.

## INTRODUCTION

Self-injurious behavior (SIB) is an activity in which an individual inflicts injury or harm oneself without suicidal intent. There are different forms of SIB, including head banging on hard surfaces, such as walls or floors, pinching, scratching, biting of the skin or gums, pulling hair, slapping or punching the face or head, eye poking and cornea scratching, and auto extraction [1,2]. It affects 4% of adolescents over a 12-month period. Prevalence in females aged 15–19 is greater than that in males; however, this trend is reversed in the 21–24 years age group.[3] Stewart and Kernohan[4] differentiated between three types of injuries for patients of normal intelligence:

Type A: Injuries superimposed upon a pre-existing lesion (or irritation)

Type B: Injuries secondary to another established behavior (such as thumb sucking)

Type C: Injuries of unknown or complex etiology (often based upon some emotional disturbance or psychological illness)

### Self-inflicting oral injuries

Biting is the most common mode of self-inflicted injury, most frequently involving the oral and perioral regions and the hands Majority of people found to have a common habit of exploring carious or traumatically exposed teeth using various foreign objects such as staple pins, darning needles, pencil leads, beads, paper clip, and toothpicks, which may sometimes break inside the pulp chamber or root canal. Most of such cases are asymptomatic and hence diagnosed accidentally on routine radiographic examination. However, embedded foreign objects may sometimes act as a potential source of infection and are convoyed with pain or recurrent swelling. Dentists must be aware of the self-inflicted dental injury, its consequences, and selection of the all-inclusive treatment strategies giving due consideration to cost-benefit ratio of the different treatment options.[5,6]

## CASE REPORT

A patient aged 14-year-old came to Department of Dental surgery of Dr. RML Hospital, New Delhi with a chief complaint of pain and swelling in upper face [Figure 1a & 1b]. An OPG radiograph revealed the presence of a long radiopaque object in the apical third of Right maxillary central incisor, periradicular radiolucency in relation to the root of 11,12 (right maxillary central and lateral incisor respectively [ Figure 2]. Vitality test was done with respect to 12 (Right lateral incisor) which proved to be positive.

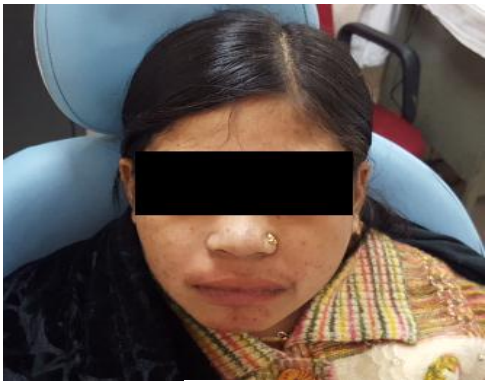

**Figure 1a.**

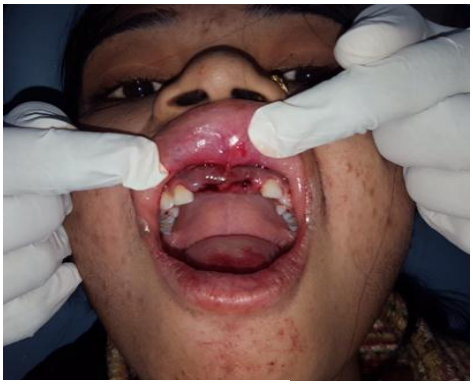

**Figure 1b.**

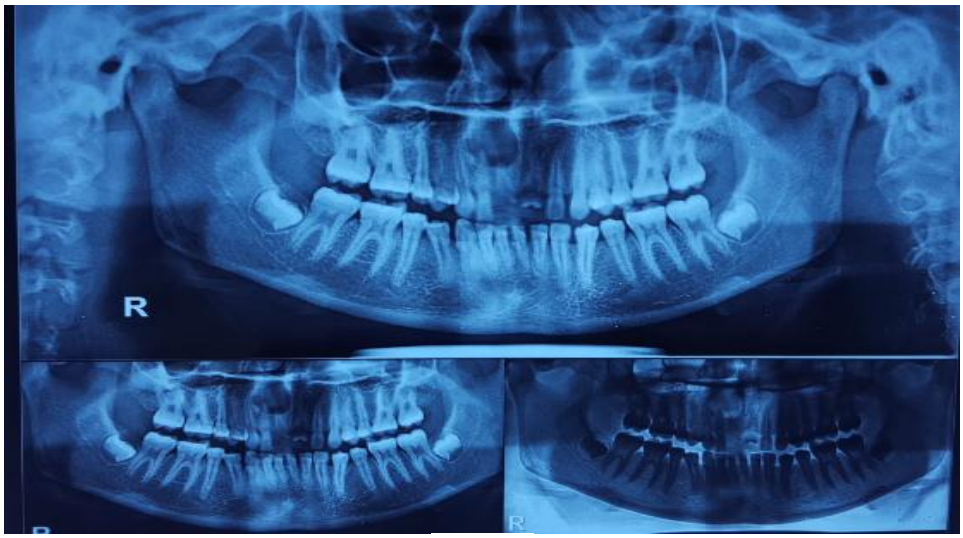


**Figure 2.**

Patient's mother was unaware of patients' habit of insertion of foreign objects in the tooth. However, in response to detailed questioning, the patient admitted that she used to get urge to place a toothpick in the tooth to relieve the discomfort associated with the involved tooth. Routine antibiotic and analgesics were prescribed. Dental extraction root stumps 11 and21 was planned followed by root canal therapy of 12. After extracting 11 and 21, toothpicks were found inside 11 which has caused infection and abscess in the patient [Figure 3]. At 1-week post extraction, patient was reviewed, she was completely fine with no swelling and pain. [Figure 4 a & 4 b]

**Figure 3.**

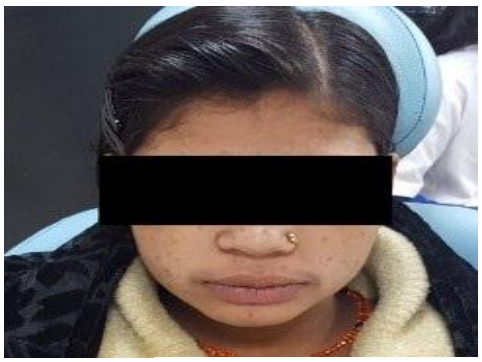

**Figure 4 a**

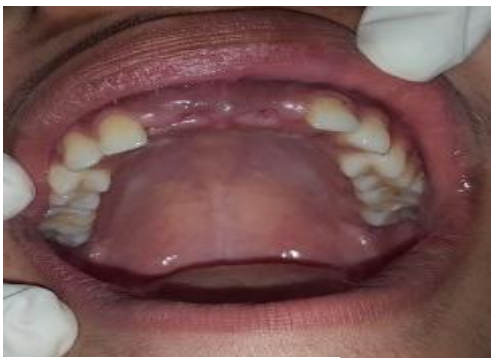

**Figure 4 b**

## DISCUSSION

SIB is a complex disorder. Biological causes such as Lesch–Nyhan syndrome, Gilles de la Tourette syndrome, autism, familial dysautonomia and mental retardation have been well recognized regarding its etiology. Functional theories maintain that attention seeking through SIB may arise in stressful situations, may be the etiological factor, especially in the absence of any known biological factors [3].

Self-inflicted dental injuries can be seen in children with either normal intelligence or psychological outlook. In children with normal intelligence, attempts to relieve chronic irritation, fear of dentistry, etc., are responsible for placing foreign objects in the mouth. However, patients with mental retardation show higher prevalence of such behavior.[7] A type of periodontal disease caused by such physical injury to the gingival tissue is termed as gingivitis artefacta has also been recognized.[4]

In some cases where foreign object is embedded in root canal of the tooth non-surgical methods for retrieval like operating microscope along with ultrasonic instruments[8], Masserann kit[9], Stieglitz forceps[10], modified Castroviejo needle holders[11], and braided multiple H-files technique[12] can be used depending upon root canal anatomy, radicular dentin thickness; foreign body related – location, size, shape, inertness of object, and operator-related availability of equipment.[6] However, in the present case, surgical removal of tooth in which foreign body was embedded was mandatory to prevent any future secondary infection. The management of self-inflicted dental injury can be achieved if the etiology of injury is recognized and psychological therapy is employed to modify patterns of behavior that have a negative impact on a person's quality of life.

## CONCLUSION

In patients with self-inflicting oral injuries, detailed case history taking, early radiological and clinical examinations should be done properly. Despite all rigorous efforts, if it becomes impractical to remove or bypass the object, a surgical procedure may be the only alternative to eliminate pain and infection. Psychiatrist or a counselor is important in the identification of triggering factors and to manage it by regular counseling to cope with stress. Behavior modification, positive reinforcement, and habit withdrawal with restrain are keys to manage such SIB.

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