

Case Report

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Oral Self-Injury: Report of a Case with Review of Literature

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ABSTRACT

Self-inflicted oral injuries are commonly seen in certain syndromes and systemic disorders. Most frequently affected regions of the body are the oral and perioral tissues, hands and neck. Although no medical treatment is available, timely dental intervention is essential to prevent further complications. The aim of this paper is to report a unique case of oral self-injury in a 10-month-old infant which was successfully treated with conservative therapy and also to briefly review the literature.

KEYWORDS: Oral self-injury; Tongue biting; Finger biting.

INTRODUCTION

Self-injury or self-mutilation can be defined as a behavioural disturbance that consists of deliberate disturbance of or damage to body tissues but is not associated with a conscious intent to commit suicide.¹ A lesion is considered to be a self-injury if it satisfies the following features: must be socially unacceptable, repetitive and causes mild or moderate tissue damage.² Cuts, burns, scratches, blunt injury, bites, and interference with wound healing are the most common forms of self-injury.³ Self-injury can affect individuals of any age, sex, or ethnic group but its frequency has found to increase amongst adolescents and young adults.⁴

REVIEW OF LITERATURE

Cannavale et al concluded that oral self-injury was uncommon in clinical practice and presented itself as the first sign of psychiatric disorder.⁵ Ragazzini et al introduced a new technique, a resin mouthguard to obtain immediate healing of the oral lesions.⁶ Limeres et al proposed that treatment for oral self-injury must be individualized as there is lack of treatment protocol.⁷ Arhakis designed a maxillary intraoral appliance to prevent oral and perioral self-injury.⁸ Santos et al concluded that association of different laser therapies was effective in establishing painless mastication.⁹ Pretty et al alerted that the odontologists should always consider self-injury as an explanation for intra-oral injuries of unidentified origin.¹⁰ Silva et al emphasized on early detection and intervention to enhance the patient's quality of life.¹¹ Jackson used a tongue depressing stent to prevent self-injury in a comatose patient.¹² Gutman et al reported a case of congenital analgesia in which the injury to tongue was due to erupted lower incisor teeth.¹³

CASE REPORT

A ten-month-old boy was referred to the Department of Pediatric and Preventive Dentistry by a Pediatrician for evaluation and treatment of large ulceration present on the ventral surface of the tongue, noticed by his parents 1 month back. Physical examination revealed the presence of 2×2 cm large ulcerated lesion on the ventral surface of the tongue, covered by pseudomembranous slough and surrounded by erythema (Figure 1). Also the tongue was bifurcated

at its tip. Lesion was present since last one month and the parents observed the infant moving his tongue over his erupted teeth on multiple occasions.

Patient was not using any medication for tongue lesion.



Figure 1: Clinical image showing ulcerated lesion on the ventral surface of the tongue.

On examination it was observed that finger of the right hand had a raw wound and necrosis was evident (Figure 2).



Figure 2: Raw wound evident on the finger of the right hand chewed by the patient.

Family history was negative for developmental disorders and congenital syndromes. The parents had history of consanguineous marriage. The patient had history of pneumonia one week after birth. Presently the patient was undergoing treatment for infection in blood and urine. When complete blood count was done it was found that hemoglobin level was low i.e. 9.7 g/dL and leukocytosis was observed as the WBC count was 20.1 thou/microlitre. The level of C-reactive protein in the serum was found to be high i.e. 13.6. Incisional biopsy was employed to rule out oral mucosal disease.

In the present case parafunctional activity or habits were ruled out and conservative therapy was planned for tongue lesion. Mandibular primary incisors were grinded to avoid further injury to the tongue. The patient was recalled after 1 month and examined. It was noticed that the tongue had healed (Figure 3).



Figure 3: Clinical image showing healing of the tongue after 1 month.

DISCUSSION

The role of dentist is imperative in the management of self-mutilating behaviour, as teeth are the main cause of self-injury. Infants with such habits pose a challenge for the clinician. Self-injury is commonly seen in child patients in genetic syndromes such as Lesch-Nyhan syndrome, Cornelia de Lange and Gilles de la Tourette syndrome.¹⁴⁻¹⁶ It has also been observed in mental retardation,^{15,17} congenital malformations^{15,18} and infectious disease such as encephalitis.^{15,19} Finger-biting can also be a manifestation of neuropathies.²⁰

Oral mucosal disease was ruled out through employment of incisional biopsy.

Various therapeutic approaches have been proposed in the literature. Preventive intra-oral devices have been designed, but have the disadvantage of extensive fabrication time, associated fungal infections and low acceptance rate in case of infants. Selective grinding of tooth cusps can be done. Acrylic splints or cast silver splints can be given to prevent gross laceration of the tongue or fingers. Extraction of teeth is advisable in severe cases if the lesion is not resolving.²⁰

A thorough clinical evaluation is required to detect such habits as they may be associated with some systemic disease or be the first sign of psychiatric disorder. Prevention should be the standard of care for such patients. Careful monitoring is of paramount importance and is recommended to prevent possible complications.

CONCLUSION

- Early detection and intervention of self-injurious habits is essential part of preventive dentistry. The importance of accurate history taking and examination of suspected cases cannot be underestimated and helps to rule out other habits and parafunctional activity.
- In general it is prudent to rule out oral mucosal disease through employment of incisional biopsy in longer standing non-healing lesions.
- Dentists should be aware of the clinical signs and treatment

options for child patients with self-mutilation habit.

- Optimal management of patients with self-injurious habits depends on a lot of factors i.e. age, severity and cooperative potential and requires careful monitoring.

SOURCES OF SUPPORT: Nil.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

CONSENT

The patient has provided written permission for publication of the case details.

REFERENCES

- Favazza AR. Why patients mutilate themselves. *Hosp Community Psychiatry*. 1989; 40: 137-145.
- Briere J, Gil E. Self-mutilation in clinical and general population samples: prevalence, correlates, and functions. *Am J Orthopsychiatry*. 1998; 68: 609-620.
- Klonsky ED. Non-suicidal self-injury in United States adults; prevalence, sociodemographics, topography and functions. *Psychol Med*. 2011; 5: 1-6.
- Ross N, Heath N. A study of the frequency of selfmutilation in a community sample of adolescents. *J Youth Adolesc*. 2002; 31: 67-77. doi: [10.1023/A:1014089117419](https://doi.org/10.1023/A:1014089117419)
- Cannavale R, Iтро A, Campisi G, Compilato D, Colella G. Oral self-injuries: Clinical findings in a patient of 19 patients. *Med Oral Patol Oral Cir Bucal*. 2015; 20(2): 123-129. doi: [10.4317/medoral.19643](https://doi.org/10.4317/medoral.19643)
- Ragazzini G, Delucchi A, Calcagno E, Servetto R, Denotti G. A modified intraoral resin mouthguard to prevent self-mutilations in lesch-nyhan patients. *Int J Dent*. 2014; 2014. doi: [10.1155/2014/396830](https://doi.org/10.1155/2014/396830)
- Limeres J, Feijoo JF, Baluja F, Seoane JM, Diniz M, Diz P. Oral self-injury-an update. *Dent Traumatol*. 2013; 29(1): 8-14. doi: [10.1111/j.1600-9657.2012.01121.x](https://doi.org/10.1111/j.1600-9657.2012.01121.x)
- Arhakis A, Topouzelis N, Kotsiomiti E, Kotsanos N. Effective treatment of self-injurious oral trauma in Lesch-Nyhan syndrome: a case report. *Dent Traumatol*. 2010; 26(6): 496-500. doi: [10.1111/j.1600-9657.2010.00930.x](https://doi.org/10.1111/j.1600-9657.2010.00930.x)
- Santos MT, de Souza Merli LA, Guare RO, Ferreira MC. The association of low and high laser treatments on self-inflicted lip injury: A case report. *Photomed Laser Surg*. 2010; 28(4): 565-568. doi: [10.1089/pho.2009.2594](https://doi.org/10.1089/pho.2009.2594)
- Pretty IA, Hall RC. Self-extraction of teeth involving gamma-hydroxybutyric acid. *J Forensic Sci*. 2004; 49(5): 1069-1072.
- Silva DR, da Fonseca MA. Self-injurious behaviour as a challenge for the dental practice: A case report. *Pediatr Dent*. 2003; 25(1): 6266.
- Jackson MJ. The use of tongue-depressing stents for neuro-pathologic chewing. *J Prosthet Dent*. 1978; 40(3): 309-311.
- Gutman D, Benderli A, Laufer D, Levi J. Congenital analgesia: Report of a case. *Oral Surg Oral Med Oral Path*. 1975; 39(6): 867-869.
- Lesch M, Nyhan WL. A similar disorder of uric acid metabolism and central nervous system function. *Am J Med*. 1964; 36: 561-570.
- Chen LR, Liu JF. Successful treatment of self inflicted oral mutilation using an acrylic splint retained by a head gear. *Pediatr Dent*. 1996; 18: 408-410.
- Cataldo MF, Harris JC. The biologic basis of self-injury in mentally retarded. *Anal Interv Dev Disabil*. 1982; 2: 21-39. doi: [10.1016/0270-4684\(82\)90004-0](https://doi.org/10.1016/0270-4684(82)90004-0)
- Corbett J. Aversion for the treatment of self injurious behaviour. *J Ment Defic Res*. 1975; 192: 79-95.
- Hyman SL, Fisher W, Mercugliano M, Cataldo MF. Children with self-injurious behaviour. *Pediatrics*.
- Finger ST, Duperon DF. The management of self inflicting oral trauma secondary to encephalitis: A clinical report. *J Dent Child*. 1991; 58: 60-63.
- Cameron AC, Widmer RP. *Hanbook of Pediatric Dentistry*. 3rd ed. Missouri, USA: Mosby Elsevier; 2008: 206-207.