

## Deliberate self injury in a child patient

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### Abstract

**Background:** Deliberate self-injury is a behavioural disturbance that consists of deliberate destruction of or damage to body tissues that is not associated with a conscious intent to commit suicide. It can take several forms such as cuts, burns and scratches with the head and neck region being the most frequently affected site. The involvement of oral structures such as the gingiva, tongue, buccal mucosa and periodontal tissues has also been reported. Although it has been widely documented amongst adolescents, it can also be seen in children.

**Case report:** We present the management of a 6 year old patient with deliberate self-injury involving a through and through laceration of the tongue. There is a need to sensitize parents and caregivers on the existence of deliberate self injury and educate them on safe keeping of injurious objects away from their children's reach.

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### Introduction

Deliberate Self Harm (DSH) is a term that encompasses self-poisoning and self-injury and it is defined as an act with a non-fatal outcome in which an individual deliberately does one or more of the following: Initiated behaviour (for example, self-cutting, jumping from a height), which they intended to cause self-harm; Ingested a substance in excess of the prescribed or generally recognized therapeutic dose; Ingested a recreational or illicit drug that was an act that the person regarded as self-harm; Ingested a non-ingestible substance or object [1]. Self-injury which is also known as self-mutilation is defined as a behavioural disturbance that consists of deliberate destruction of or damage to body tissues that is not associated with a conscious intent to commit suicide [2].

The prevalence of self-injury in community reports is unknown, however, varying values ranging between 4% and 82% have been reported among different categories of people such as adults, university graduates and institutionalized individuals [1]. Self-injury can take several forms such as cuts, burns, scratches, blunt injury, bites, and interference with wound healing and the most frequently affected sites are the head, particularly the oral and perioral tissues, the hands, and the neck [3]. Oral structures such as the gingiva, tongue, buccal mucosa and periodontal tissues have also been noted as targets for self-injury hence Dentists play an important role in the early detection of such tendencies in a patient [4-6]. Deliberate Self Injury (DSI) can be a predictor of future suicidal attempt and although it has been reported commonly in adolescents, it can also be seen in children and may persist into adolescence [7-9]. We therefore report deliberate self-injury in a child patient.

### Case Report

A 6 year old male Nigerian patient of Hausa Descent accompanied by both parents presented to the Paediatric Dentistry clinic of the University College Hospital, Ibadan, Nigeria on account of bleeding from the oral cavity of about 2 hours duration. The

patient was said to have been in his usual normal state of health until the day of presentation when he was said to have cut his tongue and lower lip with a knife. The parents stated that there was associated moderate bleeding which had been arrested, no other injury to any other part of the body, no associated loss of consciousness and no history of such previous occurrence. There was no history suggestive of any medical illness or history of consumption of any medication. Likewise, there was no history suggestive of any stress inducing circumstance either at home or in school.

On examination, the patient was conscious and alert, not in any respiratory distress, not pale and not cyanosed. There was a through and through laceration of the left lateral aspect of the anterior two thirds of the tongue measuring 2cm (Fig.1a). There was also a laceration on the left side of the lower lip measuring about 1cm (Fig.1b).



**Fig1a:** Pre-operative clinical photograph showing the tongue laceration injury



**Fig 1b:** Pre-operative clinical photograph showing the lower lip laceration injury

An assessment of self-inflicted tongue and lower lip laceration was made and the treatment plan included administration of prophylactic tetanus vaccine, debridement and suturing of laceration injuries under local anaesthesia, and subsequent referral to the clinical psychologist. Local anaesthesia was achieved by infiltrating the tongue and lower lip laceration using 2% xylocaine with 1:80,000 adrenaline. Wound debridement was done using normal saline. An anchor stitch was placed on the tongue using a 0-silk suture while 3 0 Vicryl™ suture (Ethicon) was used to suture both the tongue and lip lacerations. The tongue laceration was sutured in layers beginning from the ventral surface, then the muscular layer and followed by the dorsal surface using horizontal mattress suture techniques. Simple interrupted stitches were placed on the lower lip using 3 0 Vicryl suture (Fig. 2).



**Fig. 2:** Immediate post suturing of laceration injuries

The patient had anti-tetanus prophylaxis (SC ATS 750IU) given after an initial test dose and was placed on antibiotics (Tabs Augmentin® 375mg eight hourly and Metronidazole 200mg eight hourly for five days), and analgesics (Tabs Paracetamol 500mg eight hourly for three days). Post-operative instructions were given and the parents were instructed to ensure the patient commences the use of warm saline mouth bath (24 hours post-operatively) eight times a day for two weeks. Patient was subsequently reviewed after 24 hours to ensure patient stability and after 1 week for review of surgical sites. Subsequent review appointments scheduled for 1 and 3 months post-operatively revealed complete healing of both tongue and lip lacerations with satisfactory functional and aesthetic outcome (Fig 3a, b). The patient was thereafter

referred to the clinical psychology unit, University College Hospital for further evaluation and follow up.



**Fig. 3a:** Three months post suturing revealing healing of the dorsal surface of the tongue



**Fig. 3b:** Three months post suturing revealing healing of the ventral surface of tongue

### Discussion

Deliberate Self Injury (DSI) can be classified as organic or functional. In organic DSI, the individual injures him/herself unknowingly as seen in individuals with certain conditions like psychiatric disorders, Lesch-Nyhan Syndrome and Autism while in functional DSI the injury is performed intentionally in response to a particular stimulus and could be a form of attention seeking behaviour in children [6,10]. It can be inferred that the patient in this case report has functional DSI due to the absence of any associated medical condition. Although repetition of the injurious habit characterises most DSI, it has been said that some individuals self-harm just once or a few times as seen in this case report [3].

Although most of reports on DSI are in adolescents and individuals with special health care needs, only few reports have been documented in children [7]. In a study in India, Krishnakumar *et al* [8] reported that the youngest child with DSI in their study was 6 years old whose age is similar to that of this case report. Also, in England, Hawton and Harris [9] reported the youngest patient with DSI to be 8 years old. There are conflicting reports on gender predilection in DSI. Higher female to male ratios irrespective of method of self-harm have been reported in previous studies [8, 9,11,12] However, Arensmaen *et al.* [13] reported that self-cutting behaviour was commoner in males than females.

Deliberate self-injury encompasses a wide range of behaviours ranging from lip biting to skin cutting [3]. Studies have shown that body cutting behaviour is the commonest of all self-injurious behaviour in community based studies and only second to self-poisoning in hospital based studies [4,9,12,13] and this is also evidenced by this report as both parents attested to the deliberate cutting of the tongue with a knife. The risk factors for DSI in adults and children are similar and include psychiatric disorder, stress in the family or school and any type of discomfort [4]. None of the above risk factors was elicited from the history of this patient and this could be because the parents may not have observed such risk factor or may have ignored it. This is in consonance with previous studies which have also noted that self-injurious behaviours and its risk factors may be overlooked by parents and are usually hidden from others due to its social unacceptability with expert care sought only when the injury is life threatening [6-8, 14].

Although DSI forms a practice in some parts of the world it is said to be rare in western culture [10]. Worthy of note is the existence of the cultural practice of cutting the body with knives as part of daring entertainment among some tribal groups such as the Yan Tauri people of the Northern part of Nigeria where the patient in this case report also hails from. The members of this group believe in mystical powers and they demonstrate it by cutting their bodies with sharp knives without sustaining any injury [15]. Children that have been exposed to such practices have a tendency to mimic this art during play, nevertheless, the parents denied any form of exposure of the patient to such performances.

DSH and specifically oral self-injury can be found in healthy children and has also been said to be commonly associated with certain developmental conditions such as Lesch-Nyhan syndrome, congenital insensitivity to pain and anhidrosis, Cornella de Lange syndrome. Other associated conditions are Moebius syndrome, Munchausen syndrome, Riga Fede disease, XXY syndrome, Gilles de la Tourette syndrome, Cerebral palsy, autism, encephalitis, brain injury, and comatose state [4, 7, 16, 17].

Management of DSH should begin with treatment of the presenting complaint which in this case report is tongue laceration. Lacerations of the tongue in children could be left to heal spontaneously or sutured. Suturing is advocated in complex injuries such as bisecting lacerations, those involving the tip of the tongue or are greater than 2cm on the dorsum of the tongue and when there is an associated persistent active hemorrhage [18].

Although there is no widely acceptable clinical protocol for the management of DSH, some approaches such as use of pharmacological therapy, psychological therapy, use of intraoral device and surgical therapy have been documented depending on the type, frequency of the injury, severity of injury and method of inflicting the injury [6]. Patients with functional DSH will benefit from psychological evaluation, therapy and monitoring hence the referral of this patient to the clinical psychology unit of the University College Hospital, for further evaluation and further management, while intraoral devices such as mouth guards alone or complemented with the pharmacological agents have been found to be effective in patients with organic DSH [4]. The patient in this report was referred to a clinical psychologist but he however defaulted and he is being monitored via home-visit.

In conclusion, oral self-injury occurs in children and the head and neck region has been reported to be the area most commonly affected. This report shows the possibility of its occurrence in this environment and a need to educate parents and caregivers to keep injurious objects out of their children's reach. In addition, there is a need for a high index of suspicion by Dentists when attending to patients presenting with unusual oro-facial trauma especially when self-inflicted.

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#### References

1. Hawton K, Rodham K, Evans E and Weatherall R. Deliberate self harm in adolescents/ : self report survey in schools in England. *Br Med J*. 2002;325:1207–1211.
2. Favazza AR. Why patients mutilate themselves. *Hosp Community Psychiatry*. 1989;40:137–145.
3. Lauw M, How H and Loh C. Deliberate self-harm in adolescents. *Singapore Med J*. 2015;56:306–309.
4. Limeres J, Feijoo J, Baluja F *et al*. Oral self-injury. An update. *Dent Traumatol*. 2012;1:1–7.
5. Vucicevic B, Brailo V, Skrinjar I *et al*. Self-inflicted oral mucosal injuries. *Res J Pharm Biol Chem Sci*. 2017;8:1824–1829.
6. Cannavale R, Itro A, Campisi G, Compilato D and Colella G. Oral self-injuries/ : Clinical findings in a series of 19 patients. *Med Oral Pathol Oral Cir Bucal*. 2015;20:123–129.
7. Kurtz P, Chin M, Huete J and Cataldo M. Identification of emerging self-injurious behavior in young children: A preliminary study. *J Ment Heal Res Intellect Disabil*. 2012;1:260–285.
8. Krishnakumar P, Geeta M and Riyaz A. Deliberate Self Harm in children. *J Indian Pediatr*. 2011;48:367–371.
9. Hawton K and Harriss L. Deliberate self-harm by under-15-year-olds/ : characteristics , trends and outcome. *J Child Psychol Psychiatry*. 2008;49:441–448.
10. Singh P, Emanuel R, Parry J and Anand P. Three paediatric patients with oral self-mutilation – A report. *Dent Update*. 2008;35:280–283.
11. Madge N, Hewitt A, Hawton K *et al*. Deliberate self-harm within an international community sample of young people/ : comparative findings from the Child & Adolescent Self-harm in Europe ( CASE ) Study. *J Child Psychol Psychiatry*. 2008;49:667–677.
12. Nixon MK, Cloutier P and Jansson SM. Nonsuicidal self harm in youth: a population-based survey. *Can Med Assoc J*. 2008;178:306–312.
13. Arensman E, Larkin C, Corcoran P, Reulbach U and Perry IJ. Factors associated with self-cutting as a method of self-harm/ : findings from the Irish National Registry of Deliberate Self-Harm. *Eur J Public Health*. 2013;24:292–297.
14. Fortune SA and Hawton K. Suicide and deliberate self-harm in children and adolescents. *Paediatr Child Health (Oxford)*. 2007;17:443–447.
15. Audu YJ. Hausa folktheatre and occupational groups: some examples in Zaria, Kaduna state

- [Internet]. Department of English, Faculty of Arts and Social Sciences Ahmadu Bello University, Zaria Nigeria. 1984.
16. Siragusa M, Ferri R, Russo R, Lentini M and Schepis C. Self-inflicted lesions of the mouth and lips in mentally retarded young subjects. *Eur J Dermatology*. 2013;23:843–848.
  17. Shim S and Ahn G. Treatment of self-injurious oral trauma in patient with cerebral Palsy/ : A case report. *Int J Clin Prev Dent* [Internet]. 2017;13:155–158. Available from: <https://doi.org/10.15236/ijcpd.2017.13.3.155>
  18. Michelle S, Letizia M, Georg S and Clemens S. Tongue lacerations in children/ : to suture or not/ ? *Swiss Med Wkly*. 2018;148:1–5.

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