TOOTH BRUSH INJURY: A CASE REPORT


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ABSTRACT:
Toothbrush is used as an aid for cleaning and maintaining the oral hygiene over centuries. But improper usage of tooth brushes can cause significant damage to the oral cavity. Especially, this occurs in young children who tend to play with their toothbrushes. This article describes about the toothbrush injury while brushing the teeth vigorously. Diagnosis and management of such traumatic injury is illustrated in this article.

Key words: Tooth brush, Injury, Trauma, Soft palate

INTRODUCTION:
Tooth brush plays a major role in prevention and maintenance of oral health. Dentists recommend usage of toothbrush as a cleaning aid. Usage of tooth brush has reduced incidence of dental caries and periodontal problems. However, improper usage of toothbrush results in damage to tooth structure as well as the oral tissues especially in children.

This paper describes a toothbrush injury to soft tissue over the soft palate due to vigorous brushing which needed surgical intervention to achieve wound closure.

CASE REPORT:
A young girl of age 12 years, accidentally injured while brushing her teeth vigorously which resulted in laceration of soft palate. The child was reported to the Emergency medicine department evaluated by our oral medicine and radiology staff and referred to our department of Pedodontics.

The child was cooperative with little distress. The vital signs were normal. There was no active bleeding but the site was tender. Oral mucosa was peeled exposing the underlying connective tissue medial to the pterygomandibular raphae[Fig-1].

Initially, the wound was evaluated and it was irrigated with copious amount of saline and was sutured with 3.0 nylon sutures under Local anaesthesia [Fig-2] [Fig- 3]. The patient was discharged on the same day and was prescribed oral antibiotics and analgesics. One week later wound had healed well without postoperative complications [Fig-4].
DISCUSSION:

Although toothbrush is essential for maintaining oral hygiene, their improper usage can lead to various complaints from simple ulcers to serious life threatening injuries. Impaled toothbrush traumas are mostly caused while playing with toothbrush in mouth. Such trauma may lead to injuries. Oro-pharyngeal trauma due to tooth brush can lead to pharyngeal abscess, carotid artery thrombosis, mediastinitis or death.

Ebenezer et al described a case where a child fell while playing with his sibling with toothbrush in his mouth. Toothbrush is impaled deeply into the buccal mucosa reaching the masseter muscle. The toothbrush was surgically removed and healing occurred without complications. Rodkowski et al described a survey on traumatic injuries to oral cavities. Out of 77 cases, 23 cases were injuries to soft palate and tonsilar region with median age of 4 years and average age of 3 years.
Sagar et al\(^6\) in his study elaborated an impaled toothbrush into oral cavity due to fall from bike with toothbrush in his mouth. Impalement had caused injury to internal carotid artery which needed immediate surgical intervention to save patient’s life.

The penetrating injuries can result in serious complications, all patients who present with such injuries should be examined immediately for

- Airway obstruction
- Soft tissue injury
- Abscess, swelling and discharge
- Neurological alterations

If the injury caused by the brush is superficial topical antibiotics and analgesics are to be given. If the toothbrush has caused lacerating injuries as in our case debridement and sutures can be placed. If the toothbrush caused severe penetrating injury, it should carefully examined and removal of the same to done in local or general anaesthesia according to the severity of impalement. Tetanus toxoid injection should be given along with antibiotic and analgesic cover.

**CONCLUSION:**

Through our case, we would like to deliver a fact that daily chores such as tooth brushing can cause injuries to oral cavity.

- Thus, children should be under parental supervision while brushing their teeth.
- They should be reported to hospital even if the injury is minor as complications may arise.

**REFERENCES:**


