

## Aspirin induced intraoral burn: A rare case report with emphasis on its diagnosis

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### Abstract

**Introduction:** We present a case of chemical burn due to use of aspirin for pain control as self-medication. A patient placed Aspirin tablet in the right posterior lingual vestibule. A diagnosis of chemical burn was made based on history and clinical examination. Patient was advised to discontinue the habit and self-medication and was treated symptomatically.

**Keywords:** Chemical burn, Aspirin, Recreational drugs.

### Introduction

Oral ulceration has many potential causes ranging from physical trauma to malignancy.<sup>1</sup> Most traumatic ulceration reflects local physical etiologies such as a broken tooth, a dental restoration or trauma from an orthodontic or prosthodontic appliance. Chemicals are a less common cause of traumatic ulceration. Examples include local application of medications (eg aspirin), recreational drugs (cocaine) or some materials commonly used by dentists and non-pharmaceutical substances.<sup>2,3</sup>

### Case Report

A thirty five years old female patient reported to the Department of Oral and Maxillofacial Surgery, ITS – CDSR, Ghaziabad with chief complaint of painful ulcer in mouth since one day. She gave the history of toothache for which she placed aspirin powder below the tongue after which she developed the ulcer, which was painful. On local examination there was sloughing of oral mucosa on ventral aspect of tongue for approximately 3x4cms (Fig. 1) and associated with whitish slough on buccal mucosa (Fig. 2) correlating with diagnosis of Aspirin burn. We prescribed her topical steroid and anesthetic application (Kenacort 0.1% and Dologel CT) along with multivitamin preparation and she responded well.



**Fig. 1: Clinical photograph showing sloughing and erythema on ventral aspect of tongue right side**



**Fig. 2: clinical photograph after one week showing partial healing of ulcer**

### Discussion

Chemical burn of oral mucosa is a rare occurring phenomena. It can be classified as accidental, self-inflicted and others<sup>4</sup> self-inflicted chemical burn had been reported in literature including use of aspirin induced chemical burn. It is due to improper use of medication by the patient. Aspirin is highly acidic in nature (low PH 3.5-5.0) and hence result in coagulative necrosis of mucosa which looks like a mucosal burn called as “Aspirin burns”. The intensity of tissue damage is directly related to caustic nature of agent, quantity and duration of exposure. Chemically induced oral ulceration can affect any oral mucosal site but the most often affected sites are the labial and buccal mucosae where the patient commonly place the medication. Clinical findings include dull continuous pain with burning sensation. There is erythema and edema of the oral mucosa and gingiva which leads to the formation of white slough (pseudo-membrane) covering the underlying ulceration as seen in our case (Fig. 1). In some cases the ulceration has an irregular border and bleeds easily. In advance cases if there is

involvement of the ductal openings of the major salivary glands, transient obstructive sialadenitis may lead to permanent obstruction, chronic sialadenitis which requires surgical excision of the gland.<sup>5,6</sup> In instances of prolonged contact, some agents can be absorbed and may cause systemic effects.<sup>7</sup>

Diagnosis of chemically induced oral ulceration is based upon clinical history and clinical features. A history demonstrating chronological correspondence between a potential causative agent and the onset of the ulceration greatly aids diagnosis.

Histopathological examination of lesional and perilesional tissue is rarely indicated unless it is difficult to obtain an adequate history or if there is a suspicion of malignancy or potential malignancy.<sup>8</sup> The histopathology of chemically induced ulceration typically demonstrates areas of focal coagulative necrosis of the epithelium, ulceration, intra- and extra-cellular oedema and a sub-epithelial acute inflammatory infiltrate.

Treatment of oral burns due to chemical trauma principally requires clinically acumen and removal of the toxic agents. Most chemical burns are characterized by mild to moderate tissue damage that heals spontaneously within 7 to 14 days without scarring and requires only palliative and symptomatic treatment such as topical anaesthetic benzocaine ointment (Mucopain), Chlorhexidine gluconate gel.<sup>9,10</sup> In instances of more severe tissue damage, non-potent topical corticosteroids (eg triamcinolone) in a protective vehicle of carboxymethylcellulose may be helpful. Lesions occurring after extensive exposure to strong caustic agents may require local debridement and antibiotic therapy.

### Conclusion

Patients history plays the most important role to reach the diagnosis so it is crucial to obtain the detailed patient history.

**Conflict of Interest:** None.

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