

## Factitious Injury of The Periodontal Tissues - CASE REPORT

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### Abstract

Factitious or self-induced injuries are inflicted based on habit, frequently associated with psychogenic background; related only in manner by which they are produced, bearing no particular anatomic, etiologic or microscopic similarities. The following case report attributes a suspicious periodontal lesion to self-induced injury.

**Key words:** Factitious, Self-induced injury.

### Introduction

A Factitious or self-induced injury of the periodontal tissues occur with repeated voluntary trauma to localized areas with toothbrushes, pacifiers, fingernails, pens, toothpicks, eyeglass stems and other provocative habits<sup>1</sup>. These mechanical injuries by secondary infection and inflammatory disease manifest as a localized recession to advanced bone loss if not intercepted<sup>1</sup>. The etiology, frequency and force exerted by the habit in addition to prevailing periodontal health dictate the course of response to therapy<sup>1</sup>. The case presented herewith showcases such elements testing diagnostic acumen.

### Case Report:

A thirteen year-old male patient reported with an ulcer in the mouth since one month. The patient had a decayed tooth in the right lower posterior jaw region for which root canal treatment was initiated six months ago but not completed. The patient became symptomatic with pain in relation to the same tooth since a month and a gum boil had appeared in the gums adjacent to the same concerned tooth at the same time. The patient ruptured the boil and continued to

irritate it by massaging it. The site became tender and was causing difficulty on mastication. The patient developed a swelling in the right lower posterior jaw region since one week. The parent noticed the same and reported for consultation. The parent reported that the patient had been pricking the ulcer with objects he found accessible : toothbrush, pens, pencils, and sometimes his finger.

Examination revealed a pulpally involved 46 [FDI Tooth numbering system]. The extra oral swelling was present at the right mandibular jaw region measuring 2cm by 3cm extending from the base of the mandible to the zygomatic arch having diffuse borders, was firm in consistency and tender on palpation. The right submandibular lymph nodes were palpable and tender.

The reported ulcer was solitary and present in the region of the attached gingiva and lining mucosa in between 45 and 46 [FDI tooth numbering system], measuring 2cm by 3cm. The ulcer had sloping margins and smooth borders with an erythematous halo surrounding the border. The floor of the ulcer was coarse and would bleed on palpation. The ulcer was tender on palpation and its base was mobile. Within the ulcer margin an intra oral fistulous tract opening was found which could be traced to the apical region of 46 [FDI tooth numbering system].

Based on the history and examination findings a diagnosis of factitious injury to the gingiva was made caused by repetitive and deliberate irritation to the area surrounding the intraoral sinus tract opening leading to the present state of an ulcer in the concerned area. The patient and the parents were made aware of the problem and explained that the lesion was self induced the patient need to refrain from the reported habit to allow the ulcer to heal.

Root canal therapy was carried out in relation to 46 [FDI Tooth numbering system]. The patient was

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advised Quadrajel† and Ubi-Q\* ointments for topical application on the ulcer to provide palliative relief, antiseptics and promotion of healing respectively. The patient was asked to abstain from rubbing the ulcer with his tooth brush onto prevent further trauma. This was personally supervised by the parent during oral hygiene routine. The patient was reviewed every seven days.

After twenty one days the ulcer was found to have healed. The patient's parent reported that the patient had not reverted to the same habit since initial consultation.

## Discussion

The presence of a large ulcer in the mouth conspicuous by its isolated solitude, sharp contrast to normal background was intriguing. This, supported by the history given by the parent in regards to the patients reported habit of traumatizing himself in the area concerned with foreign objects was cause to suspect factitious injury.

This features concurred with the suggestions of Stewart and Kernohan<sup>2</sup> as criteria for diagnosing self inflicted gingival injury, considering that the area was easily accessible to the patient. Contrary to the opinion that such lesions occurred in unusually grouped multiple numbers, solitary lesions were also found to meet such criteria<sup>2</sup>.

Although the patient did report a habit, he related it to relieve discomfort caused by the lesion. This did not conform towards Stewart's Gingivitis artefacta major by its' suggestion of a possible underlying emotional disorder. This was more relevant to Stewart's Gingivitis artefacta minor for which pre-existent lesions provoking habit induced injury were mandatory<sup>3</sup>, as in this case.

The lack of any hereditary disorder [genetic, biochemical or enzymatic deficiency] ruled out organic etiology described by Ager and Levin<sup>4</sup>. Functional etiology, according to Ager and Levin<sup>4</sup>, required performance of such behaviour with patient's knowledge as was in this case. This lesion conformed more towards Stewart and Kernohan<sup>4</sup> described injuries of complex and unknown etiology. This was substantiated by the patient's procurement of secondary gain of compassion and sympathy from the parent. Neurotic excoriations and mutilation during psychotic episodes, sans secondary gains were ruled out. As signs of pre-existent lesions were detected, Stewart and Kernohan's<sup>4</sup> functional etiology of superimposed and secondary lesions were arrived upon.

A conclusion based on the subject's confession was made that the lesion was indeed a self-induced factitious injury with a functional etiology.

† Lidocane HCl 2%, Metronidazole Benzode 1%, Chlorhexidine Glconate 1%

\* β Carotene 0.1%, Ubiguane 0.1%

## Conclusion

Baffling history and clinical picture could mask a self-induced injury. In the present case the patient developed a habit of traumatizing his periodontal soft tissues with foreign objects; contributing towards a self-induced etiology for present lesion. The causative factor could not have been ascertained undisputedly if it were not for the patient's confession. This highlights the crucial role of interview and observation in diagnosis.



Figure 1. The Ulcerative lesion as on first interview

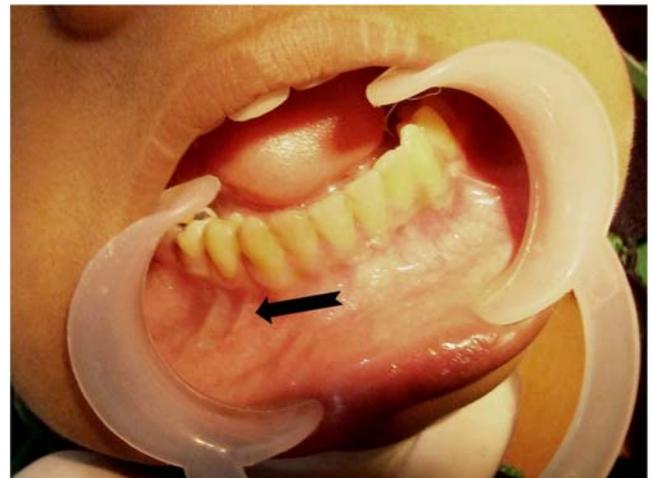


Figure 2. The same site following three weeks interlude

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