



## Nail & Wooden Particles Embedded in Extraction Socket of 14yr Old Child: A Rare Case

Darshan M Sanghvi<sup>1</sup>, Pranay Yajurvedi<sup>2</sup>, Rini Gangwal<sup>3\*</sup>

<sup>1</sup>Consultant, Oral & Maxillofacial surgeon, Ahmedabad, India

<sup>2</sup>Department of Oral & Maxillofacial surgery, Pacific Dental College & Hospital, Udaipur, India

<sup>3</sup>Department of Pediatric & Preventive Dentistry, Modern Dental College & Research Centre, Indore, India

### ABSTRACT

Foreign bodies may be deposited in the mouth due to trauma or pathogenicity or self-inflicting or self-injurious habits. Among the common iatrogenic foreign bodies in the field of dentistry are restorative materials such as amalgams, filling materials, broken instruments, needles, etc. Finding a foreign body in a tooth socket is an uncommon condition, and it is usually diagnosed accidentally. Detailed medical records, Clinical and X-ray examinations are necessary to determine the nature, size, and location of the foreign body, and the difficulties involved in retrieval. It's more common in children because it's a well-known fact that children often tend to put foreign objects in their mouths. These foreign objects may be potential sources of infections and may cause painful conditions later and mimicking cyst. This article discusses the presence of unusual foreign objects in a 14 year old patient where nails and wooden particle were retrieved from the tooth socket.

**Key words:** Foreign body, Nails, Self-injurious habits.

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**Corresponding author:** Rini Gangwal

**e-mail** ✉: dr.rini.gangwal@gmail.com

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### INTRODUCTION

Extraction of the teeth with the poor prognosis after the dent alveolar trauma is a common procedure in the field of Oral & Maxillofacial Surgery. In this procedure mucoperiosteal flap is reflected if necessary and extraction of carious tooth, fractured tooth or tooth root is extracted and healing of the extraction socket is followed by the secondary intention.

Self-inflicted oral injuries can be premeditated or accidental or can result from an uncommon habit. These injuries usually result from a foreign object or a patient's fingernail that habitually causes injury to the teeth or the gingival tissue. There are varying degrees of self-injurious behavior from simple fingernail biting to the extremes in self-mutilation [1].

Few cases of retained foreign body in the extraction socket are reported worldwide. But the objective of this case report is to report an unusual foreign body; nail of the patient himself in the extraction of the teeth which was found during the surgery.

### CASE PRESENTATION

A 14 year old male patient came with the chief complaint of pain & mobility of the maxillary right central incisor since 2-3 months after falling on the ground was diagnosed with Ellis class-3 fracture of the maxillary right central incisor & pulp polyp in the same teeth. Periapical radiograph showed well defined radiolucency at the apices of the maxillary right central incisor [2]. Pulp vitality was performed with 11, 12 & 21 which were diagnosed non vital. Crown of 11 was fractured and prognosis was poor and was planned for extraction also 12 & 21 was planned for root canal treatment. Extraction of the 11 was performed and later Root canal treatment was planned with 12 & 21 [3].

During the period of endodontic treatment, extraction socket of 11 had healed earlier but after 2 months active pus discharge was noted by patient from the edentulous space in relation to 11. Patient revisited and OPG was advised. OPG revealed radiolucency at the edentulous space of 11 [Figure 1]. Hence provisional diagnosis was residual cyst and planned for enucleation of the cyst [4].

Patient was planned for enucleation of the cyst under LA. Crevicular incision was planned and mucoperiosteal flap was reflected [Figure 2].

On the reflection of mucoperiosteal flap pus was

drained out and foreign body was inspected during the surgery. It was retrieved from the socket & debridement and curettage of the granular tissue was done. Primary closure with interrupted 3-0 black braided silk suture done [Figure 3].

The retrieved foreign body was then sent for histopathological examination, for the confirmation of the foreign body which was suspecting the nail of the patient himself. Histopathological reports confirmed that it had cuticle, vegetative particles & wooden parts [Figure 4] [5].



Figure 1: Residual cyst and planned for enucleation of the cyst.



Figure 2: Crevicular incision.



Figure 3: Primary closure with interrupted 3-0 black braided silk suture.



Figure 4: Cuticle, vegetative particles & wooden parts.

### DISCUSSION

Foreign bodies in the extraction socket are very uncommon. Foreign bodies are broadly classified as an iatrogenic and traumatic. Iatrogenic foreign bodies include retained root piece, broken dental instruments, gauze piece, dental restorative material etc. Traumatic foreign body includes stone, pieces of wood, tooth pick, food particle etc.

Two types of reactions to foreign bodies are described in pathology: the exudative type, leading to abscess formation or, very rarely, an aseptic fibrinous response, which results in adhesion or encapsulation, leading to granuloma formation.

Various cases of self-inflicting injuries which were similar to the present case, after retrieving the foreign bodies suspecting of nail patient was inquired about the habit of the nail biting. He confirmed that he has the habit of nail biting and continued his habit. He did the biting of nail just after the extraction of tooth extraction.

### CONCLUSION

Hence we recommend that each patient must be provided all post extraction instructions. Patient must be evaluated for oral destructive habits and further additional instructions related to that particular habit which prevents post – operative complication and enhance the healing.

### REFERENCES

1. Krejci CB. Self-inflicted gingival injury due to habitual fingernail biting. J Periodontol 2000; 71:1029-31.
2. Lucavechi T, Barberia E, Maroto M, et al. Self-injurious behavior in a patient with mental retardation: review of the literature and a case report. Quintessence Int 2007; 38.
3. Steelman R. Self-injurious behavior: Report of a case and follow-up. J Oral Med 1986; 41:108-10.
4. Creath CJ, Steinmetz S, Roebuck R. Gingival swelling due to a fingernail-biting habit. J Am Dent Assoc 1995; 126:1019-21.
5. Passi S, Sharma N. Unusual foreign bodies in the orofacial region. Case Rep Dent 2012.