

Localization of Broken Surgical Bur in the Third Molar Socket and Its Retrieval

Souvick Sarkar^{1*}, Mohan Baliga², Subhagata Chakraborty¹, Mihir Dani Tusharbhai¹, Thushara Kumari¹

¹Resident, Department of Oral and Maxillofacial Surgery, Manipal College of Dental Sciences, Manipal Academy of Higher Education, Mangalore, India

²Professor, Department of Oral and Maxillofacial Surgery, Manipal College of Dental Sciences, Manipal Academy of Higher Education, Mangalore, India

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*Corresponding author
Souvick Sarkar

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Abstract: Surgical removal of a broken instrument tip in the mandibular posterior region can be a difficult procedure due to proximity of vital anatomical structures of the region. Moreover, accessibility in that area is another factor that adds onto the difficulty. Thus localization of that foreign object is key in its successful surgical retrieval. Here we present such a case, with its complete management and a careful technique of retrieval.
Keywords: surgical burr, foreign body, retrieval.

INTRODUCTION

Intraoperative accident during third molar extractions is not uncommon. It may occur due to some fault in the operator technique or due to substandard surgical instruments. A 26-year-old female patient reported to our OPD with repeated episodes of pain following mandibular right third molar removal one month back in a private dental clinic. Intraoral examination showed inflamed mucosa over the mandibular right third molar which was tender on palpation without any evidence of pus discharge. IOPA X-ray was then done which revealed well defined radiopaque foreign body in the region of mandibular right third molar. After proper clinical and radiographical evaluation, treatment plan was drafted for retrieval of the foreign body surgically. Patient was operated under local anaesthesia. Crestal incision was given in the region of 48 and releasing incision was given on mucobuccal line angle of 47. Mucoperiosteal flap was raised. The foreign body was retrieved by an Ally's tissue forceps with rotational movement. The foreign body was found to be a broken straight burr tip. Smoothing of the bony margin followed by a thorough irrigation was carried out using betadine and normal saline. Flap was repositioned and sutured using 3-0 silk. Patient was kept on follow up and sutures were removed on 7th day postoperatively with uneventful healing.

The possible causes of burs and other dental instruments breakage during surgical procedures can be due to excessive stress, manufacturing defects, fatigue of instruments, rust or poor handling [1]. Excessive and incorrect sterilization is another reason for this. Use of the autoclave without the anticorrosive pre-treatment

affects the integrity of stainless steel dental instruments and can cause fracture [2].

Thus clinicians must pay definite attention to instruments being used in areas of questionable visibility and avoiding too much pressure on the hand piece burr during bone removal or tooth sectioning.



Fig-1: IOPA x-ray showing surgical burr tip in the third molar socket



Fig-2: Localization of the surgical burr tip after flap reflection

Conflict of interest: None

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