

CASE REPORT

Retrieval of Dental Implant displaced into Buccal Space: A Rare Case Report

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ABSTRACT

Migration of dental implants into the buccal soft tissues is uncommon. Many cases of implant displacement into the maxillary sinus have been reported in the literature. However, the literature has not reported even a single case of implant displacement into the buccal soft tissues. The aim of this report is to present a dental implant that migrated into the buccal soft tissues and disappeared. A 54-year-old male patient was referred to us by his dentist after a dental implant was lost into the oral cavity. The displaced implant was discovered on a panoramic radiograph and retrieved through a transoral approach by extending the existing incision posteriorly.

Keywords: Buccal space, Dental implant, Displacement, Retrieval.

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INTRODUCTION

Dental implant surgery is generally considered to be a safe surgical procedure for providing oral rehabilitation with a high success rate. However, similar to any other surgical procedure, implant surgery is also associated with many complications. Many of the complications can be resolved without severe problems; however, in some cases, they can cause dental implant failure or even life-threatening conditions.¹ Due to poor surgical access and anatomic limitations, placement of implants in the posterior maxillary arch has always been challenging. The displacement of implants into soft tissues in the vicinity of the surgical field can result in a foreign body reaction and cause serious complications.² Most of the literature reported the displacement of implants into the maxillary sinus. This

report presents a rare case of an implant displacement into the buccal soft tissues during first-stage surgery and discusses its possible consequences, management, and need for removal.

CASE REPORT

A 54-year-old male patient was referred to our department for retrieval of dental implant displaced into the right buccal soft tissues. The chief complaint of the patient was pain in the right maxillary posterior region. After history taking, it was found that the patient underwent a surgical procedure for immediate implant placement with respect to the right maxillary second molar at a private clinic. However, during the procedure, due to reduced mouth opening of the patient, the implant was lost in the oral cavity, and the operating surgeon came to a conclusion that the implant was aspirated by the patient. Following this, he referred the patient to our department. History was taken and a clinical examination performed. On clinical examination, it was found that the patient had limited mouth opening, which might be the reason for implant displacement. Thoracic and abdominal radiographs were taken for aspiration risk of the implant, but no radiopaque objects within the patient's body were detected. On palpation, tenderness in the right cheek mucosa was evident. The conventional panoramic radiograph and intraoral radiographs revealed migration of the dental implant into the right buccal soft tissues (Fig. 1). An immediate decision was made to remove the implant from the respective site. The patient's consent for suggested

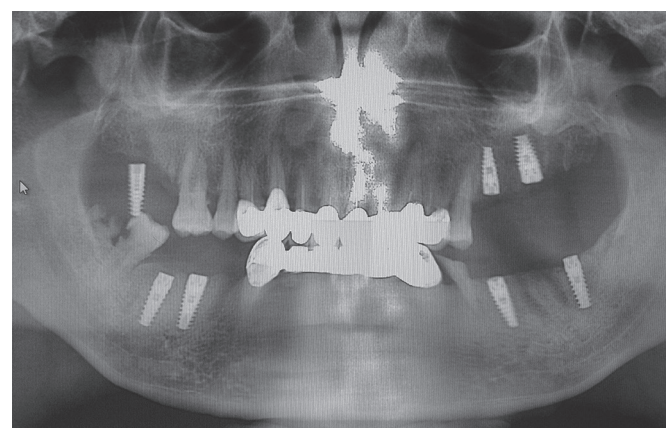


Fig. 1: Preoperative orthopantomogram showing displaced implant

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Fig. 2: Retrieved implant

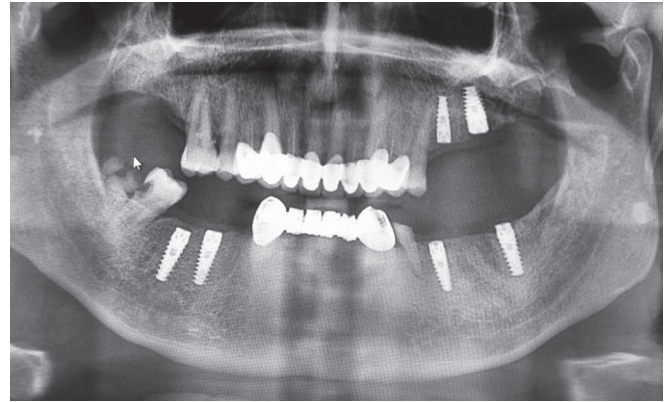


Fig. 3: Postoperative orthopantomogram after retrieval of implant

treatment was obtained, and local anesthesia administered. After the raise of an atraumatic buccal full-thickness flap, the surgical site was exposed, and it was found that the buccal cortical plate was perforated in the maxillary 3rd molar region, and a soft tissue pocket was evident there, which was leading into the buccal soft tissue of the cheek region. The site was explored using artery forceps and dissecting scissors, and the implant was detected under direct vision and removed with tissue forceps (Fig. 2). The surgical site was sutured. Antibiotics and analgesics were prescribed. Postoperative healing of the patient was uneventful. Panoramic radiograph was repeated to confirm the removal of the implant (Fig. 3).

DISCUSSION

Posterior maxilla with reduced bone height and pneumatized sinus is a challenge to the implant surgeon.³ Many cases of displacement of dental implants into the maxillary sinus have been reported in the literature. However, not even a single case of displacement of an implant into the unusual location, i.e., the buccal soft tissues, has been reported.

Any foreign material can get displaced into the body at any time while undergoing operative procedures. Immediate removal of the foreign body is recommended because adhesion of normal anatomic planes as well as foreign body encapsulation by fibrous tissue makes its removal difficult and very hazardous at a later stage. In conjunction with the prolonged presence of a foreign body, malignant processes have also been reported in the literature. Moreover, a possibility of late infection is also present. In addition, the patient's fears may result in psychological consequences. These arguments support the need for an early removal of foreign bodies whenever possible.⁴

In this case report, limited mouth opening was found to be the reason for implant displacement to the unusual

position. In the posterior maxilla, limited mouth opening prevents the drill and implant carrier from fitting correctly in the vertical direction, which could result in an implant displacement. In this case, the transoral approach was used to retrieve the implant from the buccal soft tissues. For removal of the implant, it should be localized exactly intraoperatively. Different methods can be used for detection and localization. Conventional radiography in two planes can quite accurately define a foreign object. Plain radiographs like panoramic, anteroposterior view, and lateral cephalograph are advised. Computed tomography is even better for exact three-dimensional location of the object preoperatively.⁵ In our case, we had taken occlusal, periapical, and panoramic radiographs to locate the implant. In our case, the existing incision given to place the implant was modified by extending it posteriorly to retrieve the implant. Precise localization, knowledge of the anatomy of the surgical field, and skills of the surgeon play a prime role for retrieval of implant or any foreign object from an unusual location.

CONCLUSION

Foreign bodies in the head and neck are occasionally difficult to manage. Careful selection of preoperative imaging is necessary for retrieval of implant. The decision to retrieve a foreign body from the head and neck region using an intraoral approach should be guided by the precise location and size of the object, the signs and symptoms presented by the patient, and the surgeon's knowledge and skill. The surgeon should be prepared for unpredictable complications, such as hemorrhage, and preemptively consider an alternative surgical approach.

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