Accidental Displacement of an Impacted Mandibular Third Molar Into the Lateral Pharyngeal Space

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Displacement of impacted teeth is a rarely reported complication. The most common sites of dislodgment are the maxillary sinus and submandibular space. Because there is often dehiscence of the overlying lingual bone, and the mandibular third molar roots may be actually sitting in the submandibular space, root fragments or the entire tooth may be displaced into it during extraction. This report describes an unusual case of an impacted mandibular third molar that was displaced into the lateral pharyngeal space.

Report of Case

A 24-year-old woman was referred to the Department of Oral Surgery of the Çukurova Dental School with a complaint of pain and discomfort during swallowing and restriction in mouth opening. She had undergone a unsuccessful surgical procedure under local anesthesia performed by a general practitioner for removal of impacted lower left third molar months before. She had had progressive limitation of mouth opening (15 mm), slight swelling on the left side of the neck, and difficulty swallowing despite antibiotic therapy during the last few weeks. A panoramic radiograph showed the presence of the tooth in what appeared to be the pterygomandibular region (Fig 1). Frontal and transverse computed tomography (CT) scans were obtained to determine the exact location of the tooth in the mediolateral and anteroposterior directions. These showed that the tooth was located at the anterior border of the lateral pharyngeal space underlying the left tonsillar region (Figs 2, 3).

The tooth was retrieved via a transoral approach after tonsillectomy under general anesthesia by the Department of Otolaryngology. A vertical incision starting from the tonsillar fossa was extended to the retromolar triangle, and blunt dissection was used to reach the lateral pharyngeal space. An abscess was drained during retrieval of the tooth, which indicated the presence of a localized infection. The postoperative course was uneventful, and the patient remained asymptomatic during the follow-up period. A rapid improvement in mouth opening was achieved by physical therapy (3 cm by the 2nd week).

Discussion

Displacement of an entire tooth during extraction is rarely encountered. Besides anatomic considerations, such as a distolingual angulation of the tooth or dehiscence in lingual cortical plate, excessive or uncontrolled force, improper manipulation due to lack of experience, and inadequate clinical and radiographic examination are important factors that can lead to tooth displacement. In the current case, efforts made to retrieve the tooth after its initial dislodgment and blind probing appear to be the possible reasons for further displacement from the pterygomandibular space into the lateral pharyngeal space.

Advanced imaging techniques are often required to locate a displaced tooth and its relation to the adjacent

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FIGURE 1. Panoramic radiograph showing the displaced tooth apparently in the pterygomandibular region.
anatomic structures. In this case, conventional radiographs, including posteroanterior, lateral skull, and panoramic radiographs, were inadequate. CT showed the exact location of the displaced tooth and its relation to the surrounding soft tissues. Because the tooth was located almost under the left tonsil, retrieval from tonsillar fossa seemed to be more convenient and less traumatic than using an incision over the anterior border of the ramus, and dissection medial to the medial pterygoid muscle.

Some authors prefer to postpone surgery for several weeks to allow fibrosis to occur and stabilize the tooth in a firm position. However, delayed intervention may increase the risk of infection and result in a foreign body reaction or migration of the tooth. One should be aware of the potential risk of serious infection involving adjacent fascial spaces, including the cervical fascial spaces. Involvement of the lateral pharyngeal space also may have serious life-threatening sequelae, including thrombosis of the internal jugular vein, erosion of the carotid artery or its branches, or interference with cranial nerves IX through XII. In this case, infection was controlled by aggressive antibiotic therapy before surgical intervention, and the patient recovered without any sequelae.

References