

Transmigrated Mandibular Canine: A Rare Case Presentation

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Received: July 21, 2025

Published: August 05, 2025

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Abstract

Transmigration of mandibular canines is a rare dental anomaly characterized by the migration of an unerupted canine across the mandibular midline. With a reported prevalence between 0.1%–0.9%, it occurs more frequently among females and is commonly associated with labial migration, especially on the left side [6]. Though initially asymptomatic, transmigration may lead to serious complications if left undiagnosed. This report presents a Type 1 transmigration of tooth #33 in an 18-year-old female, managed through surgical extraction following CBCT evaluation.

Keywords: Transmigrated; Mandibular Canine; Dental Anomaly

Introduction

Transmigration of mandibular canines was first described by Tarsitano, *et al.* [1] and later refined by Javid [2], who stipulated that true transmigration requires the canine to cross more than half the midline. Mupparapu's 2002 classification [3] remains the most utilized scheme for categorizing patterns based on radiographic location. Though rare [6], its clinical consequences warrant careful consideration and early intervention.

covered incidentally on panoramic radiography. The tooth was positioned horizontally beneath the apices of the contralateral right central incisors with no radiographic signs of root resorption. It was classified as Type 1 according to Mupparapu's system [3].

CBCT revealed a labial orientation and safe distance from the inferior alveolar nerve. Surgical extraction was performed, followed by curettage of the follicular sac. The procedure was uneventful.

Case Presentation

An 18-year-old female was referred by her orthodontist for evaluation of a transmigrated mandibular left canine (#33) dis-



Figure 1: Panoramic radiograph showing transmigrated mandibular canine (#33) crossing the midline and positioned horizontally beneath the contralateral incisors.

Discussion

Potential complications associated with transmigrated mandibular canines include:

- Root resorption or mobility of adjacent teeth [4]
- Malocclusion due to absence of the canine in its natural position [5]
- Odontogenic cysts or tumors, particularly follicular cysts [7]
- Interference with mandibular growth or symmetry, especially in adolescents [6]
- Delayed eruption or impaction of neighboring teeth [7]
- Neurological symptoms such as paresthesia when impinging on the IAN [3]

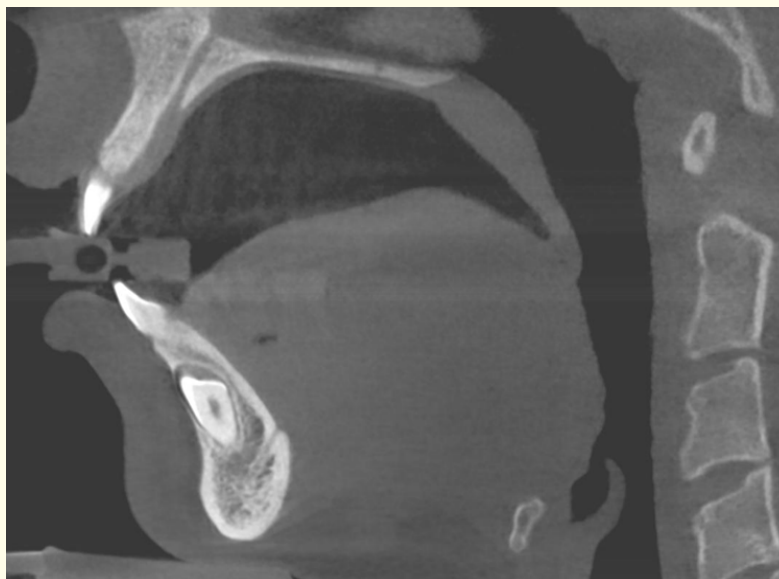


Figure 2: Cone beam computed tomography (CBCT) scan revealing labial orientation of the transmigrated canine and its anatomical relationship to adjacent structures.

CBCT imaging plays a pivotal role in preoperative planning and classification, while early recognition enhances interdisciplinary decision-making [4,7].

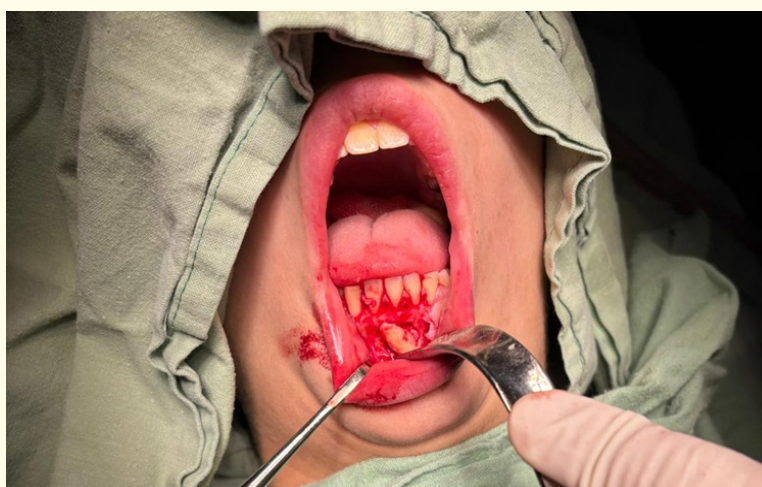


Figure 3: Intraoperative photograph showing the surgical site post-extraction and curettage of the follicular sac.

Conclusion

This case underscores the importance of early radiographic screening and classification of transmigrated mandibular canines. CBCT remains essential for surgical planning, and removal should be considered when pathology, occlusal disturbance, or anatomical risks are present.

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