

# Impact and Management of an Impacted Canine in an Elderly Patient: A Radiographic Case Study

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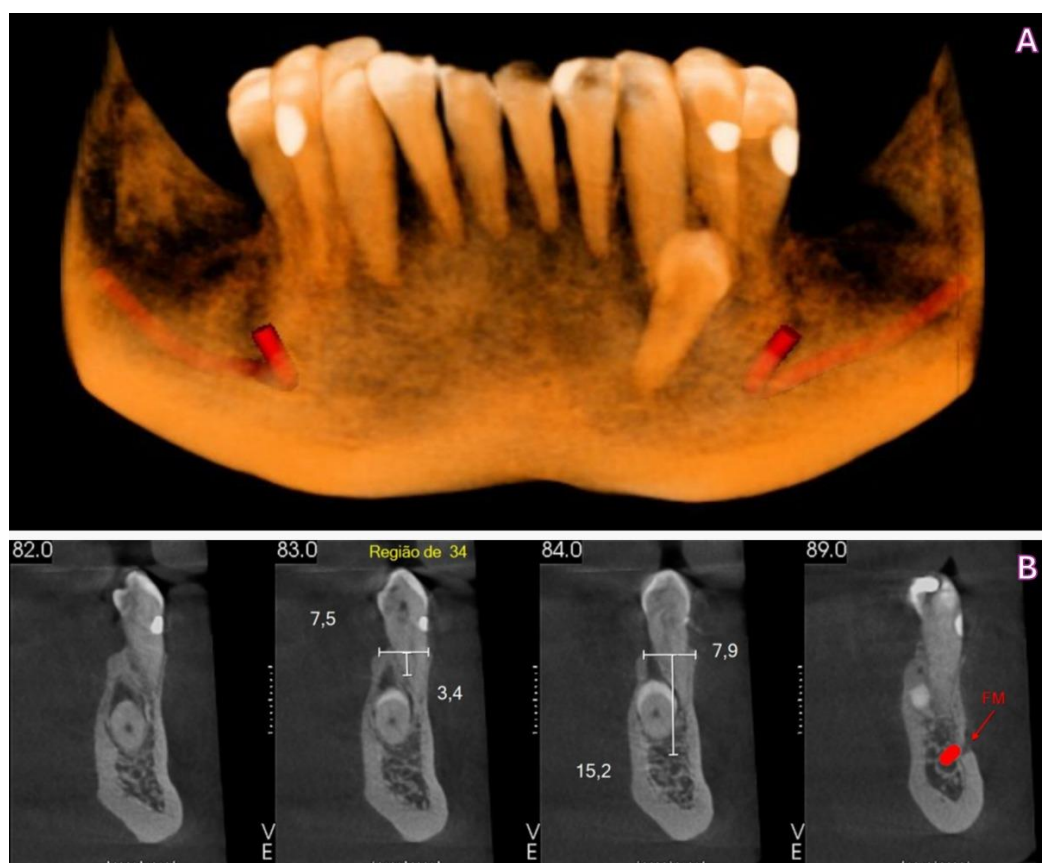
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**Figure 1:** Presence of an impacted tooth (canine) in position 34.

A radiographic image presented highlights a case of an impacted canine located in the region of tooth 34 in a 65-year-old patient. The panoramic image (A) clearly shows the impacted canine, while the red markings represent the path of the inferior alveolar nerve, not other impacted canines as previously mentioned. The cone beam computed

tomography (CBCT) images in (B) provide specific axial sections in the region of the impacted canine, demonstrating its position in relation to the inferior alveolar nerve and adjacent bone structures, with detailed measurements that aid in the treatment evaluation.

This case illustrates the complexity involved in managing an impacted canine in an elderly patient. Considerations of surgical removal versus conservative treatment are crucial, given the potential implications for the patient's health. In older adults, conservative treatment may be a valid option due to the lower risk of surgical complications such as damage to the inferior alveolar nerve, significant bone loss, or healing problems. The choice to monitor the impacted tooth with periodic imaging examinations may be preferable to avoid interventions that could compromise the anatomical integrity of the patient, especially in areas close to critical nerve structures [1-3].

However, it is essential to consider the possibility of root resorption of adjacent teeth, the development of pathologies such as cysts or tumors, and other problems associated with the impacted tooth [1-3]. Treatment decisions should be based on a careful assessment of the risks and benefits, considering the overall health status of the patient and their preferences, and always in consultation with an experienced oral surgeon or periodontist.

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## References

1. Sathyanarayana HP, Nucci L, d'Apuzzo F, Perillo L, Padmanabhan S, Grassia V. Prevalence, etiology, clinical features and management associated with impacted and transmigrated mandibular canines: a systematic review. *BMC Oral Health*. 2023 Dec 7;23(1):975. doi: 10.1186/s12903-023-03717-1. PMID: 38062382; PMCID: PMC10701972.
2. Kim J, Jung S, Lee KJ, Yu HS, Park W. Forced eruption in impacted teeth: analysis of failed cases and outcome of re-operation. *BMC Oral Health*. 2024 Feb 20;24(1):254. doi: 10.1186/s12903-024-03963-x. PMID: 38378499; PMCID: PMC10877739.
3. Li N, Yang L, Yang Q, Wang H, Xu X, Wang T. Long-term follow-up after the treatment of impacted canines in the maxilla causing severe root resorption of the lateral incisors: two case reports. *BMC Oral Health*. 2024 Apr 20;24(1):482. doi: 10.1186/s12903-024-04275-w. PMID: 38643143; PMCID: PMC11032590.