

## چکیده انگلیسی

### The assesment of pattern of maxillary canine impaction in the Ardabil city

#### Abstract

**Background & Objective:** Impacted teeth are one of the most common reasons for visiting dentists and maxillofacial surgeons. During clinical and radiographic examinations and evaluations, the dentist sometimes realizes that the patient's problem is due to the impaction of one or more teeth. Therefore, it is necessary for every dentist to make the necessary and correct decision for the treatment of such teeth. One of the best ways to diagnose impacted teeth is first of all the absence of that tooth in the desired location and clinical evaluation of the patient and secondly to check the radiographic view of the desired area. Impacted teeth can be the source of many problems for various reasons, so in most cases, their extraction is recommended. Knowing how to place the impacted tooth and determining its type and other characteristics of the impaction can help the dentist in choosing the appropriate treatment-surgical method and also prevent complications during surgery. Proper and timely diagnosis of impaction as well as determining its position (buccal-palatal-intermediate) in the jawbone can reduce damage to adjacent structures and also affect the treatment plan. Because accurate detection of impacted tooth positions is possible with radiography, the most accurate radiograph to examine the impacted tooth is cbct images. Therefore, due to possible occlusion injuries and the effect of occlusion pattern on the treatment of these teeth, it is important to study the types of impaction patterns. Therefore, this study was presented with the aim of investigating the impaction pattern of maxillary canine teeth in Ardabil with cbct archive.

**Methods:** In this descriptive cross-sectional study, CBCT images of 239 patients who met the inclusion criteria were evaluated. Due to the lack of statistics, due to the lack of statistics of maxillary impacted canine teeth in Ardabil, the counting method was used for sampling and stereotypes were identified as maxillary impacted canine teeth as the sample size.

The obtained data were analyzed in SPSS24 software.

**Results:** Among the impacted canine teeth studied, 63.2% had palatal, 17.5% buccal and 19.3% had intermediate pattern. Also, 11.2% had damage to adjacent structures and 88.8% had no damage to adjacent structures. Among the types of damage to adjacent structures, 46.9% caused root resorption of the first premolars, 34.5% caused root canal resorption, and 18.6% had other damage to adjacent structures. Of these, 50.4% had root curvature and 49.6% had no root curvature, of which 12.1% had severe curvature, 38.7% had mild curvature and 49.2% had severe curvature. Also, the average angle of the incised canine

to the lateral incisor was 41.7%. 9% of impacted canine teeth had a root resorption of lateral incisors and 9% did not have a root resorption of lateral incisors.

**Conclusion:** Dentists should treat cases such as maxillary latent canine such as: Examine the occlusion pattern, angle to adjacent teeth, damage to adjacent structures, curvature of the incised canine root, and root resorption of adjacent teeth.

**Key Words:** Maxillary canine, Impacted teeth, CBCT