

## مقایسه الگوی رویشی دندانهای مولر دوم دائمی در افراد دارای مال اکلوژن کلاس I، II و III

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**Title:** A comparative study between pattern of eruption of second molars in class II and class III malocclusion with class I

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**Introduction:**

In many of orthodontic treatments of patients with jaw discrepancies it is important to understand more about the pattern of growth and eruption of teeth. The aim of this study was to compare the pattern of eruption of upper and lower second molars in class I, II and III malocclusions to select the best time and treatment mechanics.

**Materials & Methods:**

192 panoramic radiographs from 45 class I, 97 class II and 50 class III orthodontic patients in the range of 11-12 years were selected. They were classified dentally by Angle's classification and skeletally by cephalometric analysis. Eruption stage of second molars was determined by Nolla's method and compared statistically X2 Pearson and Fisher exact test.

**Results:**

There was no significant difference between different malocclusions and sexes in pattern of eruption and percentage root formation of upper and lower second molars. The only significant difference was seen in girls with class II malocclusion, in which maxillary second molars were in the lower stages of eruption comparing with mandibulars ( $P=0.024$ ). No significant difference was seen between right and left molars. In both sexes upper and lower second molars were in equal distances to the occlusal plane.

**Conclusions:**

There was no significant difference between different malocclusion and sexes in eruption stage of upper and lower second molars.

- There was significant difference between different malocclusions and sexes in percentage of root formation of upper and lower second molars.
- Exceptionally girls in with class II malocclusion, percentage of root formation in lower second molars was higher than upper second molars.
- In both sexes and all types of malocclusions the distance of upper second molars to occlusal plane was more than lowers.

**Key words:**

Pattern of eruption, second permanent molars, malocclusion.

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### چکیده

#### مقدمه:

در برخی از درمان های ارتدنتیسی بیماران دارای عدم تناسب فکین، علاوه بر مسیبر و چگونگی رشد فکین، دانستن مسیبر و الگوی رویشی دندانها از اهمیت خاصی برخوردار است. ما در این تحقیق سعی داشتیم تا با بررسی تفاوت الگوی رویشی مولرهای ماگزایلا