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A comparison of the effects of first premolar extractions on third molar angulation

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ABSTRACT

The effect of third molars on the stability of orthodontic treatment has been studied extensively. Yet the effect of orthodontic treatment, particularly premolar extractions, on third molars has not been substantially studied. The purpose of this investigation was to compare the changes in third molar angulation in patients treated with and without extractions. Records of 45 Class I, non-extraction and 33 Class I, first premolar extraction patients were examined. The pretreatment and posttreatment pantographs were digitized, and the angles between the third molar long axes and the occlusal plane were measured. Changes in third molar angulation from pretreatment to posttreatment for the two groups were compared for statistical differences using a Student's t-test. Statistical analysis revealed there were no significant differences in the change in third molar angulation in either group. On average, the maxillary and mandibular third molars showed an improvement in angulation relative to the occlusal plane. The results suggest that factors other than first premolar extractions many influence third molar angulation.

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