

OP47 INCISOR ROOT RESORPTION IN PATIENTS WITH AN ANGLE CLASS II DIVISION 2 OCCLUSION IN RELATION TO ORTHODONTIC TREATMENT: A STUDY OF ONE- VERSUS TWO-PHASE TREATMENT
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AIMS: To analyse 1) differences in the occurrence of orthodontic induced inflammatory root resorption (OIIRR) of the maxillary and mandibular incisors in Angle Class II division 2 subjects, between patients treated with a fixed appliance only (one-phase) or those treated with a removable appliance before treatment with fixed appliance (two-phase), 2) associations between OIIRR and treatment time, age, gender and additional dentofacial deviations in the total group, 3) differences in OIIRR between tooth groups in the total group.

SUBJECTS AND METHOD: Seventy four subjects treated for a Class II division 2 malocclusion were divided into two groups: 46 patients in the one-phase group (28 girls, 18 boys, mean age 14.4 years) and 28 in the two-phase group (18 girls, 10 boys, mean age 12.4 years) . OIIRR was assessed on intraoral radiographs, dentition deviations on dental pantomograms and craniofacial morphology on lateral cephalograms. Differences were tested by Fisher Exact test, McNemar and multiple regression analysis.

RESULTS: The one-phase group showed significantly more OIIRR for the lower central incisors ($P = 0.002$) compared to the two-phase group. For the total group only gender was associated with OIIRR, where boys showed more OIIRR than girls for the lower central incisors ($P = 0.002$). The upper lateral incisor was the tooth group that showed most OIIRR ($P < 0.001$) compared to other tooth groups.

CONCLUSION: OIIRR of the lower central incisors is more common in one-phase treatment compared to two-phase treatment, that boys show more OIIRR, and that upper lateral incisors are more at risk for showing OIIRR.