OP40 ASSOCIATION BETWEEN PAIN DURING ORTHODONTIC ALIGNMENT AND ORTHODONTICALLY INDUCED ROOT RESORPTION

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AIMS: To assess the association of dental pain during orthodontic alignment and orthodontically induced root resorption (OIRR).

SUBJECTS AND METHOD: This study is part of a multi-centre randomized clinical trial (mRCT) in Scotland. The first 105 patients recruited (in the mRCT) were included. All patients had fixed upper and lower pre-adjusted orthodontic appliances. Patient perception of fixed orthodontic appliance treatment was assessed using a patient based questionnaire 'Smiles Better' after 6 months of the start of treatment. A section in the questionnaire addressed patient perception of dental pain using a Likert style question. All patients had periapical radiographs taken for the maxillary central incisors before the start of treatment and after 9 months to assess the extent of OIRR. A Spearman rank correlation coefficient test was used to assess the association between patient perception of pain and OIRR.

RESULTS: Eighty eight participants completed the questionnaire where most reported mild pain (78.5%) during the first 6 months of treatment while (10.2 %) and (11.3%) reported no pain or significant pain, respectively. Only 68 participants had pre-treatment and 9 months periapical radiographs available. From the available records it was noticed that the majority of patients, 56.3 per cent, had no radiograpically detected OIRR; while 27.2 and 16.5 per cent showed mild and increased OIRR, respectively. No statistically significant association was found between patient perception of pain and OIRR during the 6-9 months of alignment. The results of this study should be considered with caution due to the number of dropouts.

CONCLUSION: There is no statistically significant association between the perception of pain during alignment and OIRR.