



UMEÅ UNIVERSITY

CARIES DEVELOPMENT AT DIFFERENT TOOTH SURFACES IN SWEDISH ADOLESCENTS UNDERGOING ORTHODONTIC TREATMENT

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ABSTRACT

Introduction

Dental caries is the most common chronic infectious disease and is associated with plaque, bacteria, diet and saliva. Previous caries experience predicts 1/3 of future caries development. However, there is a lack of knowledge regarding the natural history of caries development at different surfaces and their relative ability to predict caries progression.

Aim

The aim of this study was to describe the caries experience and progression of caries at different tooth surfaces during 5 years in patients undergoing orthodontic multibracket treatment.

Methods

In the previously conducted 452-study, children were examined at 12 and 17 years of age. There were 66 patients with multibrackets at the follow-up who we analyzed. Degrees of caries, fillings and missing tooth were registered in an excel file according to the dental statuses (baseline and follow up). Excel and SPSS were used to compare the files and create figures.

Results

The most affected pair of surfaces at 12 years of age are 36/46 buccally, then occlusally and at 17 years of age 36/46 occlusally and then approximally. The progression of caries and fillings during five years mostly affects 37/47 occlusally and then 17/27 occlusally. A progression also occurred at buccal surfaces 13-23.

Conclusion

The results show that occlusal and approximal surfaces at molars experience caries most frequently and the progression is highest for the second molars. There was also a progression of caries noted on 13-23 which could be associated with the multibrackets. This information may be important in future risk assessment models.