

THE INFLUENCE OF A TIME PERIOD ON BONDING STRENGTH OF PLACED BRACKETS

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One of the factors that can influence the bond strength of the placed brackets can be the length of the orthodontic therapy.

The aim of this in vitro experimental study was to examine the bond strength between bonded orthodontic metal brackets fixed with different adhesives and the surface of the teeth enamel at different time intervals.

Three different types of adhesives were used in this study: Heliosit (Ivoclar Vivadent, Lichenstein), Fuji Ortho LC (Japan), System 1+ (Dentaurum, Germany) and their impact on the bond strength of the bonded orthodontic brackets at different time intervals.

Average bond strengths in all three examined groups showed an increase 15 days after bonding the orthodontic brackets, and then a slight decrease in a bond strength of the brackets 30 days after their placement.

The results of the examined average bond strengths lead to a conclusion that the mutual characteristic of all three examined materials is that the bond strength is the weakest 24 hours after the bracket placement; after 15 days it reaches its maximum in strength, and 30 days later it decreases in all three groups.

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