MICROLEAKAGE AND IMAGE ANALYSIS OF CLASS II COMPOSITE RESINS AS AFFECTED BY ECCENTRIC CYCLIC LOADING

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ABSTRACT

This study was concerned with the evaluation of micro leakage and gap at the interface of three different composite resins with the tooth structure as affected by cyclic loading. Sixty maxillary human premolar teeth were selected. Class II cavity was prepared with standard dimension and divided into three groups filled with the three different composite resins. The restored teeth were subjected to thermocycline. The restored teeth were then divided into two subgroups, first not subjected to eccentric cyclic load and the other subjected to eccentric cyclic load. Microleakage at the interface were measured using stereomicroscopic. Image analysis was used to measure the gap distance at the interface. The results were tabulated and statistically analyzed. A significant difference was found between the three different materials as well as by the application of eccentric cyclic load.