

IN VITRO EVALUATION OF USING TWO DIFFERENT LUTING AGENTS AND THE RECEMENTATION TECHNIQUE ON THE RETENTION OF IMPLANT SUPPORTED FIXED RESTORATIONS

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ABSTRACT

Many current implant systems have abutments onto which casted superstructures can be cemented. This investigation compared the retentive strengths of two of the most commonly used luting agents when used with cemented superstructures and one implant system. It also determined whether the cleaned, recemented castings are as retentive as when initially placed.

Ten ITT solid screw implant fixtures and solid abutments were used in this study. Ten-cement retained metal ceramic crowns were fabricated on these abutments and cemented with two different luting agents (zinc phosphate and glass ionomer). The specimens were stored in physiologic saline at 37C for 24 hours prior to testing. The retentive strength necessary to debond each casting was measured. Crown/abutment specimens were cleaned after testing and recemented again for 2nd and 3rd trial recementation. All readings were recorded and data were analyzed statistically for comparison. Significant retentive differences were identified among both luting agents at different Cementation trials. Zinc phosphate cement gave higher retention values with the new titanium abutment. Successful recementation of castings could be accomplished by using glass ionomer cement.