

THE EFFECT OF BONDED AMALGAM ON THE FRACTURE RESISTANCE OF M.O.D. CAVITIES

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ABSTRACT

This study was carried out to investigate the effect of bonded amalgam restorations on the fracture resistance of mesio-occluso-distal (MOD) cavities. The bonding agents used were Panavia-Ex and Amalgambond plus. Copal varnish was used for the control groups. The results showed that bonded amalgam restorations increased the fracture resistance of teeth compared to those restored using unbonded amalgam restorations. Panavia-Ex dental adhesive improved the fracture resistance of teeth prepared with MOD cavities more than Amalgambond plus. Panavia-Ex dental adhesive increased the fracture resistance of teeth prepared with MOD cavities and restored with high copper amalgam restorations more than those restored with conventional amalgam restorations. Amalgambond plus caused modest but statistically insignificant increase in the fracture resistance of teeth prepared with MOD cavities and restored with high copper amalgam or conventional amalgam restorations.

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