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ARRESTING CARIES IN ENAMEL BY KETAC BOND MATERIAL AS A SEALANT

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Introduction:

Since glass ionomer cement was introduced in dentistry⁽¹⁾, it has mainly been used as a filling, cementing, and lining material. Only few reports have been published on glass ionomer cements for fissure sealing⁽²⁻⁸⁾, but it has been suggested that its fluoride release^(9,10) and the adherence to the enamel^(11,12) may be suitable for the purpose.

The capacity of a sealant to prevent microleakage into the fissure is important, since microleakage may support a carious process underneath the sealant^(13,14). A study was conducted to investigate if microleakage occurs in fissures

after being sealed with a glass ionomer cement (Fuji III). The study indicated that Fuji III was poorly retained in the fissures, and that the material permits leakage even when it is fully retained. The material may however, prevent caries by release of fluorides, and the fact that remnants of cement were found in fissures which clinically seemed to have lost it, indicates that this may even occur in cases with loss of retention⁽¹⁵⁾. Clinical effectiveness of a BIS-GMA fissure sealant versus Fuji III glass ionomer pit and fissure sealant was also evaluated⁽¹⁶⁾. A comparison of this study's six-month complete retention rates of 92.2%

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