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Abstracts

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HT, were placed when there was clinical evidence of approximal caries into dentine. PMCs (3M™ ESPE™ Stainless Steel Crowns) is cemented over the tooth without caries removal, tooth preparation or local anaesthesia. Compomer fillings (Voco Glasiosite) were placed in 13 teeth as control restoration. Every 6 months clinical/radiographic follow-up data were recorded. Restorations and HT scored as satisfactory was considered "successful," while those presented Minor and/or Major Failures will be considered as "failed". Statistical analysis was performed with SPSS 16.0 for Windows. The comparison of data was made using the chi-square. For all tooth types, only one of the PMC was lost. At 18 months, 'Major' failures (irreversible pulpitis) were recorded only one HT (92.3%). There was no minor failures for HT. There was no major failures for control restorations 'Minor' failure (restoration wear/fracture; or secondary caries) for control restorations was 6 (46.10%). The succes rate of Hall Technique was statistically significant than compomer in 18 months ($p = 0.034$). In conclusion, after 18 months, Hall technique showed more favourable outcomes for pulpal health and restoration longevity than compomer restorations. The technique however requires further evaluation through clinical trials before its use could be generally recommended.

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Monitoring Pit and Fissures Using Transparent Sealant and Fluorescence Intraoral Camera, 12 Months Follow Up

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The aim of this *in vivo* study is to report on the combined use of a fluorescence intraoral camera and transparent sealant for the clinical monitoring of pits and fissures. 96 permanent molars with a ICDAS II code 0, 1, or 2, (in 48 patients aged 12–14) were registered at the First Observation Unit (Oral and Maxillofacial Sciences Department), *Sapienza* University, Rome. Clinically selected teeth were double-checked using a VistaCam iX Proof (Dürr Dental AG) and sealed with a transparent sealant (ControlSeal, VOCO GmbH), following the established indications for use if a pit and fissure condition was confirmed within the camera's internal cut-off point of 1.5 ("early enamel demineralization"). Clinical follow-up was performed using VistaCam at 6 and 12 months to assess sealant retention and any demineralization trend. At baseline, 57.4% of the registered teeth were sound, both visually and when using the fluorescence camera, 42.6% presented an early demineralization (<1.5 with VistaCam and ICDAS II 1–2). Subsequent VistaCam assessment of surfaces underlying the transparent sealant totally confirmed initial evaluations. Complete sealant retention rated 95% at 6 months, and 91% at 12 months. No case of complete detachment was observed. At the 12-month follow-up, VistaCam measurements resulted stable in the whole sample, except for one permanent molar, which presented a demineralization increment and partial sealant retention. Visual and fluorescence assessments were consistent and feasible. Incomplete sealant retention occurred in 5% of cases at 6 months and 9% of cases at 12 months and was probably due to procedure imperfections. The combined use of transparent sealant and a fluorescence camera shows clinical effectiveness and diagnostic efficacy for occlusal surface monitoring.

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