



DIRECT POSTERIOR RESTORATION WITH THE COSTUM SHIELD TECHNIQUE AND DIRECT PULP CAPPING IN A YOUNG PATIENT

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Fig.1 Pre-operative clinical presentation



Fig.2 Pre-operative rx

INTRODUCTION: Restorative dentistry today has fully achieved the objectives of functional and aesthetic restoration of the compromised tooth element. Maximum preservation of biological tissues, first and foremost pulpal tissue, remains a current challenge. In pursuit of this goal, particular attention must be paid to bioactive materials, such as Biodentine, which aim to preserve the vitality of the element in the event of tooth capping. Furthermore, in the case of paediatric patients or dentophobic patients, reducing chair time is a challenge. The Custom Shield Technique is a minimally invasive restorative technique that aims to reduce chair time for conservative treatments.

METHODS: An 22-year-old patient came to our observation with carious lesions, clinically and radiographically visible, at the level of elements 14, 16 and 17. The carious lesion on element 16 was particularly deep. Given the patient's cooperation, it was decided to proceed with the direct technique adopting The Custom Shield technique and to use Biodentine to preserve vitality.

After anesthesia, the teeth were cleaned with glycine and a rubber dam was applied; a silicone liner was created and the decayed tissue was removed. In the case of tooth 16, given the limited pulp exposure, Biodentine was applied to the bottom of the cavity for direct pulp capping. An adhesive and a high-viscosity flowable composite were then applied. The silicone index was used as a guide to restore the correct anatomy of the mesiobuccal cusp, which had been intentionally removed during preparation.



Fig.4 Post-operative clinical presentation



Fig.5 Post-operative rx

RESULTS: The restoration was carried out successfully: the carious lesion was completely removed, the anatomy and function of the teeth were perfectly respected, the contact point restored and the patient presented no pain in the days following the operation. At a distance of three years, clinical and radiographic examination shows the continued vitality of tooth 16.

CONCLUSIONS: This case indicates that the combined use of bioactive materials and The Custom Shield technique allowed us, in a predictable way and with short chair time, to resolve carious pathology, restoring function and aesthetics while ensuring the maintenance of pulpal vitality.

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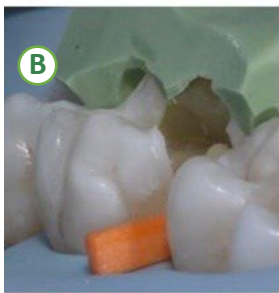


Fig.3 Application of biodentine to the bottom of the cavity, testing of the silicone index and application of flowable composite for protection

