Reliable and effective use of the TECO adhesive bonding system in daily practice – a case report

Urs Kühne, Dental Surgeon (Hamburg-Bahrenfeld)

Introduction
Adhesive filling treatment plays an important role in the modern dental practice. There is now a large variety of adhesives and it is not unusual for more than three different bonding agents to be used for treatment in the practice. This diversity of materials often places extra demands on the practice personnel. An adhesive with a simple technique and excellent bond strength offers the best option for the practice team as well as the dental treatment. Total-Etch-Control Bond (TECO) from DMG provides a bonding system that not only ensures effective treatment but is also easy to use.

Material
TECO is a light-curing bonding agent for enamel and dentine for use in conjunction with light-curing composites and compomers. The enamel and dentine surfaces to be bonded have to be conditioned (total-etch technique). The practical unit dose ensures that the material is always ready to use and optimizes hygiene and the amount dispensed.

Clinical case
The case involved a lower premolar restoration with an inadequate composite filling. Clinical diagnosis indicated marked secondary caries, which was also the cause of the pain. The patient wanted a composite restoration. After placing a rubber dam using an ivory clamp and wetjet, the old restoration was removed and the secondary caries excavated. The cavity was isolated approximally and then conditioned with a 37% phosphoric gel (DMG etching gel, included in the pack). First the enamel was etched and then the dentine. The reaction time on the enamel should be approx. 20-60 seconds. The reaction time of the gel on the dentine should not exceed 15 seconds. The gel was rinsed off with the water jet for a minimum of 15 seconds. A uniform moist film remained on the dentine surface after conditioning and the enamel had a classic etch pattern (chalky, whitish surface).

After opening the unit dose, the TECO bonder was massaged in for a minimum of 20 seconds with the brush and the slight excess was gently air dried with oil-free air for approx. 5 seconds. This produced a uniform, moist-looking adhesive coating in the cavity. The TECO was fully polymerized using a light-curing unit. The light power should be at least 400 mW/cm². The restoration was completed using EcuSphere Carat composite in shades A1 + A2. The premolar cavity was restored using the step-by-step, incremental application technique with EcuSphere Carat. Excess was removed after light-curing. After removing the rubber dam, the composite restoration was finished and polished and the function checked in the usual way.
Conclusion
The TECO adhesive bonding system produces optimal results with the standard adhesive technique (total-etch). In terms of cost-effectiveness it reduces the different types of adhesive systems used in the practice.
Particular features are its easy application with the unit dose and optimal hygiene.
The TECO system has the following advantages:
• very easy application with the unit dose
• bonder is always readily available
• no risk of contamination or mix-up
• optimal hygiene
• considerable saving in time
• material easily massaged in with the brush stick
• material does not pool in the cavity
• no post treatment hypersensitivity

My patients expect high-quality restoration treatment, and this requires modern components that are systematically coordinated. As a dental surgeon I expect to be able to continue using a standard procedure with the adhesive technique, but with an innovative bonding system.

Contact address
ZA Urs Kühne
Stahlwiete 23
22761 Hamburg-Bahrenfeld
Germany
info@urs-kuehne-zahnarzt.de

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