

Morphological characterization of the tooth/adhesive interface**Khalid Tawfik A Alduaiji**

Al-Farabi College for Dentistry and Nursing, Riyadh, Saudi Arabia

Morphological studies are useful to corroborate well-established bonding techniques considering that adhesive systems are introduced to the market at a very rapid rate. Even more, they may help explaining results that mechanical tests alone cannot do based on the quality of the bonding interfaces. The purpose of this study was to assess the morphological characteristics of the tooth/adhesive interface using different adhesive systems in MOD restorations under scanning electron microscopy (SEM). The tested hypothesis was that the morphology of the bonding interface would vary in different areas of MOD restorations for the three adhesive systems. MOD cavities were prepared in 12 sound extracted human third molars and restored with Filtek Z250 composite resin and one of the following adhesive systems: Experimental ABF (n=4), Clearfil SE Bond (n=4) self-etching primers and Single Bond etch-and-rinse adhesive system (n=4). After 24-h storage in distilled water at 37°C, teeth were sectioned and prepared for SEM. The interfacial morphology varied depending on the adhesive system and also on the evaluated area. The null hypothesis was accepted because the morphology of the tooth/adhesive interface reflected the characteristics of both the dental substrate and the adhesive systems.

Key words: adhesive systems, resin-tooth interface, MOD restoration, scanning electron microscopy.

dr.khalidalduaiji@hotmail.com**Notes:**