



Role of smear layer in adhesive dentistry and how to improve bond to dentin with self-etching adhesive

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Adhesive systems can be divided into 2 approaches; a smear layer-removal approach with etch-and-rinse adhesives or a smear layer-modified approach with self-etching adhesives. The bond strength of etch-and-rinse adhesives are not affected by smear layer because of the application of phosphoric acid. However, more attention is required when using self-etching adhesives. It was recommended to use mild-self etching adhesive. With mild pH of acidic monomer, smear layer is partially dissolved and incorporated into the hybrid layer. In addition, the bonding performance of this adhesive is influenced by several factors, *e.g.* the smear layer preparation method, the etching efficacy, and the self-etching adhesive application technique. This presentation will discuss the contributing factors that affecting the smear layer characteristics, and the influence of the smear layer on the bonding performance of self-etching adhesives. Also, the application techniques regarding how to improve the bonding performance of self-etching adhesives are provided.

<Curriculum Vitae>

- 2002 – 2008 Doctor of Dental Surgery, Mahidol University, Bangkok, Thailand
- 2010 – 2011 Higher Grad in Operative Dentistry, Mahidol University, Bangkok, Thailand
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