Evaluation of experimental acid monomers in self-etching adhesive systems: a literature review

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Self-etching adhesives are aqueous acid solutions containing acid monomers capable of conditioning and infiltrating dental tissues. This paper aims to perform a literature review on the new adhesive monomers synthesized in self-etching adhesive systems and adhesive potential. For this review, searches were performed using electronic databases (PuBMed and SciELO) and the following keywords were used to research: Dental adhesives; Self-etching; Composite resins; Enamel. The inclusion criteria were: papers published in English from 2014, with texts available in full and indexed. As a result, we found: 5-methacryloyloxypentyl 3-phosphonopropionate (5-MPPP), 6-methacryloyloxyhexyl 3-phosphonopropionate (6-MHPP), phosphonoacetate 6-methacryloyloxyhexyl (6-MHPA), 6-acryloyloxyonionyl-6-phosphonopropionate AHPP), 6acryloyloxyhexyl phosphonoacetate (6-AHPA), 10-methacryloyloxydecyl 3-phosphonopropionate (10-MDPP), and 10-phosphonoacetate methacryloyloxydecyl (10MDPA). In addition, other authors suggest that bisphosphonic and difluorophosphonic acid monomers should improve durability of dentin bonding.

Keywords: Dentistry, Dental Materials, Acid Monomers, Self-Etching Adhesives.

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