Tensile bond strength of orthodontic brackets bonded with a fluoride-releasing light-curing adhesive.

Abstract:

A light-curing, fluoride-releasing adhesive (VP 862, Vivadent, Liechtenstein) for bonding of brackets has been produced for inhibition of white spot lesions during orthodontic treatment. The tensile bond strength after 24 hours and 6 months was investigated and compared with two other light-curing adhesives (Transbond, 3M Corp., Monrovia, Calif., and Heliosit-Orthodontic, Vivadent, Liechtenstein) and two chemical-curing adhesives (Concise, 3M, Monrovia Calif., and Saga Bond, Saga Orthodontics, Kongsvinger, Norway). All adhesives produced adequate strength to be recommended for clinical use. The light-curing adhesives produced slightly lower bond strengths after 24 hours and 6 months, except Transbond, which showed an increase in bond strength in this period approaching the two chemical adhesives.