

Pengaruh Jarak Penyinaran terhadap Kekuatan Tarik Diametral Material Restorasi Resin Komposit Alkasit = Effect of Light-Curing Distance on Diametral Tensile Strength of Alkasite Composite Resin Restoration Material

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Abstrak

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh jarak penyinaran terhadap kekuatan tarik diametral dari material restorasi resin komposit alkasit. Tigapuluh dua spesimen material restorasi resin komposit alkasit Cention-N, Ivoclar-Vivadent, Liechtenstein berbentuk lempengan dengan ketebalan 3 mm dan diameter 6 mm n=32 dibagi menjadi dua kelompok dengan jarak penyinaran 0 dan 2 mm n=16 . Spesimen dipolimerisasi menggunakan LED curing unit, iradiansi 800 mW/cm² selama 30 detik. Spesimen diuji menggunakan Universa Mechanical Testing Machine 250 kgf, 0,5 mm/menit, Shimadzu, Japan untuk mendapatkan nilai kekuatan tarik diametral. Hasil uji statistik Independent Sample T-Test menunjukkan bahwa kekuatan tarik diametral menurun namun tidak signifikan terutama pada kelompok dengan jarak penyinaran 2 mm. Disimpulkan bahwa jarak penyinaran dapat mempengaruhi nilai kekuatan tarik diametral.

ABSTRACT

The aim of this study is to analyze the effect of light curing distance on diametral tensile strength of alkasite composite resin restoration material. Thirty two disc shaped specimens of alkasite composite restoration material Cention N, Ivoclar Vivadent, Liechtenstein with 3 mm thickness and 6 mm of diameter n 32 were divided into two different light curing distance groups 0 and 2 mm n 16 . All Specimens were polymerized using LED curing unit, irradiance 800 mW cm² for 30 s. Specimens were tested using Universal Mechanical Testing Machine 250 kgf, 0,5 mm menit to determine its diametral tensile strength. The statistical results from Independent Sample T Test, showed that diametral tensile strength of 2 mm light curing distance group were decreased, but not significantly .It was concluded that light curing distance has effect on the diametral tensile strength of composite resin alkasite material.