



2nd Dental Research Exhibition And Meeting **DREAM**

STRATEGIC ACHIEVEMENT FOR DENTAL CARE
IN MULTIDISCIPLINARY APPROACH

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COMPARISON OF HALOGEN LIGHT INTENSITY TO HARDNESS OF HYBRID COMPOSITE RESIN

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ABSTRACT

Composite resin restoration is a material that can be activated by light with a certain intensity, the magnitude of the intensity issued by Light Curing Unit greatly affect the polymerization and the physical properties of resin composites, one of which is the hardness. Halogen Light Curing Unit is a type that is often used to polymerize resin composite. Halogen light has an average intensity of 400 - 800 mW/cm² and minimum output intensity of 300 mW/cm².

This study was conducted to determine the difference in hardness generated by the hybrid resin composite irradiated using halogen light with intensity 300 mW/cm² and 500 mW/cm².

This research is a kind of experimental laboratory. This study uses a sample of 10 hybrid composite resin. Each sample was divided into 2 groups. The first group was irradiated with intensity 300 mW/cm² and the second group irradiated with intensity 500 mW/cm². Hybrid composite resin hardness then tested using a Vickers Microhardness Tester and the test results data are analyzed using Independent sample t-test.

The results showed that the highest value of hardness-intensity halogen light rays 500 mW/cm² is 83.2 VHN and the lowest hardness value is irradiated with 300 mW/cm² halogen light intensity is 72.1 VHN.

From statistical test results it can be concluded that there is no difference in hybrid resin composite hardness that irradiated with 300 mW/cm² and 500 mW/cm² ($p > 0,05$)

Keywords : Composite Resin, Light Intensity, Resin Composit Hardness

DENTAL RESEARCH EXHIBITION AND MEETING



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drg. Yusrini Pasril, Sp.KG

sebagai

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