

39th Asia-Pacific

DENTAL AND ORAL CARE CONGRESS

October 26-28, 2017 Osaka, Japan

The effect of mint leaf (*Mentha piperita*) extract volume added on the hardness of chemical activated acrylic resin**Dyah Ayu Anindya Susanti**

Muhammadiyah University of Yogyakarta, Indonesia

Acrylic resin is a material that is often used as a denture base. Acrylic resin is containing ethylene vinyl derived groups in the formula. Clinicians tend to select the acrylic resin as a denture base material because it has a non-toxic nature, not irritating, not soluble in oral fluids, good aesthetics, easily manipulated, easy reparation and small dimensions change. Nevertheless, acrylic resin has the disadvantage that the content of methacrylate monomers inside the molecule produces unpleasant smell during the process of manipulation. This study aims to determine the effect of the concentration of mint leaf extract (*Mentha piperita*) added to the acrylic resin before polymerization to the hardness of acrylic plate. A total of 15 samples in this research in the form of plates which size 64X10X3, 3 mm that were divided into three different groups: Group-1: Without the addition of mint leaf extract, Group-2: With the addition of mint leaf extract 0.25 ml and Group-3: With the addition of mint leaf extracts 0.5 ml. Then the whole sample was left for a process of perfect polymerization and then was preceded with testing of the hardness using the micro Vickers hardness using 10 gf mass loads. The results of comparative parametric statistical tests one way ANOVA revealed that there was an effect of the addition of mint leaf extract ($p < 0.05$), there is a significant difference in hardness values between groups. Then from the LSD (least significant different) revealed that there is any significant difference in the value of acrylic resin hardness between each group in this study. So the addition of mint leaf extracts (*Mentha piperita*) affect the hardness of chemical activated acrylic resin.

Biography

Dyah Ayu Anindya Susanti has completed her Bachelor of Dentistry from School of Dentistry, Faculty of Medicine and Health Science, Muhammadiyah University of Yogyakarta. She has also joined the Student Exchange Program in School of Dentistry Tokushima University Japan in 2014.

dysusanti@gmail.com

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