

## **ABSTRACT**

### **EFEK REPOLISHING RESIN AKRILIK DAN POLIAMIDA SETELAH DIRENDAM LARUTAN KOPI TERHADAP PERUBAHAN WARNA (REPOLISHING EFFECT OF ACRYLIC RESIN AND POLYAMIDE AFTER BEING IMMERSED IN COFFEE SOLUTION TO COLOR CHANGES) ASTIKA MAHARANI PUTRI**

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**Background.** Color changes in denture base material made of polymer occur after few years usage. Repolishing the materials could be one of many methods to return the denture base color as previously. **Purpose.** The objective of this study was to investigate the repolishing effect of stained acrylic resin and polyamide in vitro. **Method.** Seven cylindrical samples (10 x 1,3 mm) were prepared for each group of acrylic resin (QC-20, Dentsply, USA) and polyamide (FRS Lucitone, Dentsply, USA) with injection moulding heat-polymerized. Samples were polished by cotton cloth wheel used with blue and white polishing compounds (BEGO, USA) until smooth and shiny. Then samples were immersed into coffee solution (Nescafe classic) for 7 days. After that, samples were repolished with the same technique of polishing. The color of samples were measured with photodetector OPT 101, after polishing, after immersing into coffee solution and after repolishing. The data were tabulated and analyzed using Paired T-test. Independent T-test was also used to compare the color changes of acrylic resin and polyamide. **Results.** Paired T-test showed significant differences for acrylic resin and polyamide, from polishing to immersion in coffee solution, coffee solution to repolishing and polishing to repolishing were 0,002; 0,015; 0,002 and 0,000; 0,014; 0,000 respectively ( $p < 0,05$ ). Independent T-test showed there were no significant differences from the changes of the color between acrylic resin and polyamide ( $p > 0,05$ ). **Conclusion.** The color of acrylic resin and polyamide changed from polishing, immersion in coffee solution and after repolishing, but there is no differences of repolishing effect between acrylic resin and polyamide. **Keywords :** polyamide, acrylic resin, repolishing, color change