

**PERBEDAAN DAYA ANTIGLUKAN NaOCl 2,5% DAN EKSTRAK
KULIT MANGGIS 0,09% (*Garcinia mangostana L.*) TERHADAP
*Enterococcus faecalis***

**COMPARISON OF ANTIGLUKAN ACTIVITY BETWEEN NaOCl 2,5%
AND MANGOSTEEN PERICARP EXTRACT 0,09% (*Garcinia mangostana
L.*) AGAINST THE *Enterococcus faecalis***

ABSTRACT

Background. Failure of endodontic treatment is commonly caused by the persistent microorganisms remaining in the root canal such as *Enterococcus faecalis*. *Enterococcus faecalis* can form a biofilm in tough environmental conditions within the root canals and caused biofilm-mediated infections which needs more complicated treatment due to the increasing of antimicrobial resistance. The biofilm formation initial and most important step is bacteria adherence to the solid surface that is mediated by glucan. NaOCl 2.5% is a commonly used root canal medicaments but can cause injury of periapical tissue. Mangosteen pericarp extract contains flavonoid, tannin, and xanthone have mechanism for inhibiting adherence of bacterial biofilm. Difference of antibacterial activity between NaOCl 2.5% and mangosteen pericarp extract 0.09% can be determined by experimental laboratory to determine the adherence of bacteria in each treatment. **Purpose.** The aim of this study was to assess the difference of antiglucan activity between NaOCl 2.5% and mangosteen pericarp extract 0.09% on *Enterococcus faecalis*. **Method.** This study was designed as an experimental laboratory study with post test only control group design using *Enterococcus faecalis* ATCC 29212. Mangosteen pericarp was extracted using maceration method. Adherence analysis was observed after 24 hours by examining the viable cells in suspension. These viable cells are measured by UV-Vis spectrophotometer to compare the suspensions' turbidity. Using the Independent T-Test, significantly less bacteria were found adhering to the mangosteen pericarp extract. **Results.** Absorbancy difference level by mangosteen pericarp extract 0.09% is significantly greater than the NaOCl 2.5% ($p < 0.05$). **Conclusion.** Antiglucon activity that generated by mangosteen pericarp extract 0.09% is greater than NaOCl 2.5%

Keywords: NaOCl, mangosteen pericarp extract, *Enterococcus faecalis*, glucan