

**COMPARISON OF THE ANTIGLUCAN PROPERTIES OF 2%  
CHLORHEXIDINE AND 0,09% MANGOSTEEN PERICARP EXTRACT  
(*Garcinia Mangostana* Linn) AGAINST *Enterococcus Faecalis***

**ABSTRACT**

**Background:** Caries is one of the oral health biggest problems and can lead to endodontic infection. *E. faecalis* is a microorganism which is often found after endodontic treatment failure and has virulence factors such as glucan. Application of chlorhexidine and mangosteen pericarp extract could decrease glucan production. **Purpose:** To compare the antiglucan properties between 2% chlorhexidine and 0,09% mangosteen pericarp extract as a root canal irrigant against *E. faecalis*. **Method:** This research was done in-vitro experiment. *Enterococcus faecalis* which is diluted as standard 0,5 McFarland ( $1,5 \times 10^8$  CFU/ml) is being grown in BHIB media. Negative control in this research is BHIB media without *E. faecalis* or sucrose. Positive control in this research is BHIB media with *E. faecalis* and sucrose. Control group 1 is BHIB media mixed with sucrose and 2% chlorhexidine without *E. faecalis*. Control group 2 is BHIB media mixed with sucrose and 0,09% mangosteen pericarp extract without *E. faecalis*. The control group's absorbance is being compared to treatment groups. After incubation for 24 hours, the absorbance is being examined with spectrophotometer. **Result:** There is a significant difference between 2% chlorhexidine and 0,09% mangosteen pericarp extract ( $p < 0,05$ ) toward glucan produced by *Enterococcus faecalis*. **Conclusion:** Chlorhexidine has a bigger antiglucan properties compared to mangosteen pericarp extract.

**Keywords:** glucan, *Enterococcus faecalis*, endodontic, chlorhexidine, mangosteen pericarp extract