

ABSTRACT

Background : *Enterococcus faecalis* is a pathogenic bacteria that is often encountered in endodontic treatment failure. The bacteria play a role in the inflammation that occurs due to extracellular enzymes in their proteolytic activity. To prevent the possibility of endodontic treatment failure. Some microbial agent such as irrigation and antibiotics can be given. In addition to these two options, propolis is an attractive options because of its beneficial biological and medical effects. Propolis has the potential to inhibit the activity of proteolytic bacteria when used as a natural medical agent. **Purpose** : This study to determine the effect of propolis extract (*Apis Trigona*) various concentrations on proteolytic activity of bacteria *Enterococcus faecalis*. **Methods**: The type of research conducted was laboratory experimental *in vitro*. The extract of *Apis Trigona*'s propolis was tested on *Enterococcus faecalis* bacteria consisting of various concentrations: 0,05%; 0,1%; 0,2%; 0,4%; and 0,8% by weight/volume (w/v). The method used was liquid dilution on Brain Heart Infusion media which was then measured turbidity with Spectrophotometer UV-mini and continued with gelatin hydrolysis test. **Result** : All tested concentrations may inhibit the proteolytic activity of bacteria *Enterococcus faecalis*. The most effective concentration in inhibiting the proteolytic activity bacteria is 0,4%. **Conclusion** : The extract of *Apis Trigona* ethanol propolis effectively inhibits the proteolytic activity of *Enterococcus faecalis* bacteria.

Keywords: Extracts of ethanol propolis (*Apis Trigona*), proteolytic activity, *Enterococcus faecalis*