

ABSTRAK

Background: *Aggregatibacter actinomycetemcomitans* is facultative anaerobic bacteria, gram-negative attributed as a periodontal disease etiology. Application of an irrigation solution that has an antimicrobial effect can be used as an additional treatment. The irrigation solution used is chlorhexidine and hydrogen peroxide.

Purpose: This aims to determine the effect of using *chlorhexidine* 0.2% irrigation solution combined with *hydrogen peroxide* 3% in the growth of *Aggregatibacter actinomycetemcomitans*.

Method: The type of research used is pure laboratory experimental. The method used is the diffusion of wells with the media of blood agar plate followed by the measurement of bacterial inhibition zone with sliding caliper. The irrigation solutions used in the study were *chlorhexidine* 0.2% and *chlorhexidine* 0.2% combined with *hydrogen peroxide* 3%.

Result: Both tested irrigation solutions can inhibit the growth of *Aggregatibacter actinomycetemcomitans* bacteria. The most effective irrigation solution in inhibiting bacterial growth is *chlorhexidine* 0.2%.

Conclusion: The use of a single solution showed a more effective result than the solution applied in combination.

Keywords: *chlorhexidine* 0.2%, *hydrogen peroxide* 3%, The bacterial inhibition zone.