ABSTRACT

Antibacterial Pandan Leaf Extract (Pandanus amaryllifolius Roxb) Against Streptococcus viridans

Background: one of the principles of root canal treatment is the preparation. At this stage, followed by irrigation canals. Terms of root canal irrigation should have antibacterial against streptococcus viridans. Pandanus amaryllifolius roxb consists of flavonoids and alkaloids which are belived to act as antibacterial.

Purpose: To know of any antibacterial pandanus amaryllifolius roxb leaf extract against streptococcus viridans. Methods: streptococcus viridans was added in tube of pandanus amaryllifolius roxb extracts with a concentration of 100%, 50%, 25%, 12.5%, 6.25%, 3.125%, 1.56%, 0.78%, 0.39% and 0, 19%. They were incubated for 24 hours at 37 °C, then observed and compared with positive and negative controls to see turbidity. Tube with the lowest concentration and no turbidity defined as MIC (Minimum Inhibitory Concentration). Inoculum of bacteria on 3 tube, the MIC tube, above the level of MIC and below the level of MIC, subcultured on BAP. They were incubated for 24 hours at 37 °C, then observed to see the colony. The lowest extract concentration and there is no established colonies defined as MBC (Minimum Bactericidal Concentration).

Result: The research has proven the relation between the increased growth of streptococcus viridans and pandan leaf extracts concentration. The higher concentration, the more antibacterial. Hence, there has been significant different (p<0,05) among groups. Conclusion: Pandan leaf extract (pandanus amaryllifolius roxb) has antibacterial against streptococcus viridans with MIC in 3.125% and MBC in 6.25%.

Keywords: Pandanus amaryllifolius roxb, streptococcus viridans, antibacterial