ABSTRACT

Background: One of oral abnormalities that often arise periodontal disease is caused by dental plaque bacteria. There are many ways to prevent dental plaque’s formation. Nowadays, herbal therapy is oftenly used as an antibacterial agent to inhibit growth of microorganism. Material derived from nature is safer than synthetic drugs. The herb used in this study is soursop leaf extract. Soursop leaf extract contains some active agents which are potential as an antimicrobial such as tannin, saponin, and alkaloid. Purpose: This study aims to determine the existence of the inhibition of soursop extract on the growth of supragingival plaque bacteria. Methods: This study was a laboratory study, using soursop leaf extracts in various concentration by serial dilution. These are 100%, 50%, 25%, 12.5%, 6.25%, and 3.125%. All of concentration was planted in MHA by strike method and seen bacteria growth. Take 0.1 ml from tube boundary between the growth of bacteria and also positive and negative control then be planted in the MHA by spread method for bacteria colonies counting. Results: At concentration of 25%, colonies of bacteria reduced 100%, at 12.5% reduced 90.3%, and at 6.25%, reduced 77.1% compared to positive control. Conclusion: Soursop leaf extract may inhibit the growth of supragingival plaque bacteria.

Keywords: soursop leaf extract, supragingival plaque bacterial, inhibitory effect