THE EFFECTIVENESS OF CINNAMON ESSENTIAL OIL AS A DESINFECTANT ORAL MICROORGANISMS ON POLYVINYL SILOXANE

ABSTRACT

Background: Cinnamon (Cinnamomum burmannii) essential oil contains cinnamaldehyde as anti microorganisms by inhibiting bacterial cell wall synthesis and also tannin (proanthocyanidins) and (epi) catechins that can damage the structure of the bacterial surface. Purpose: The purpose of this research was to examine the effectiveness of Cinnamon essential oil to inhibit the growth of oral microorganisms. Methods: 35 PVS samples were divided into 5 groups. Each group was treated by immerse the PVS samples by different concentration of cinnamon essential oil and sterile distilled water (control). Result: Each cinnamon essential oil with a different concentration, (0.05%; 0.07%; 0.09%; and 0.11%) can inhibit the growth of oral microorganisms attached to PVS samples with the lowest number of microorganisms colony (p<0.05) which is a cinnamon essential oil with the concentration 0.11%. Conclusion: Based on limited of this research’s result, it is significantly shows that higher concentration of cinnamon essential oil will inhibit more microorganisms in PVS samples.

Keyword: Cinnamomum burmannii, PVS, oral microorganisms.