DAYA HAMBAT EKSTRAK BUAH MENGKUDU (*Morinda citrifolia* L.) TERHADAP PERTUMBUHAN BAKTERI *Porphyromonas gingivalis*

THE INHIBITION OF NONI FRUIT EXTRACT (Morinda citrifolia L.*) ON THE GROWTH OF Porphyromonas gingivalis*

ABSTRACT

Background *: Periodontitis is an inflammation on periodontal structure that caused by invasion microorganism. Among periodontitis's types, chronic periodontitis is the most prevalent type and often associated with Porphyromonas gingivalis. Nowadays, herbal therapy is often used as antibacterial agent to inhibit microorganism's growth. The herbs used in this research is noni fruit extract (Morinda citrifolia* L.*) that contain many antibacterial agent such as anthraquinone, saponin, and iridoid.* ***Purpose*** *: The aim of this research is to find the inhibition of noni fruit extract (Morinda citrifolia* L.*) on the growth of Porphyromonas gingivalis.* ***Method*** *: This research was done in vitro experiment using agar disc diffusion method. The extract was diluted into concentration of 100%, 50%, 25%, 12,5%, 6,25%, 3,12%, 1,56%, 0,78%, 0,39%, and 0,19%. The inhibitory zones were recorded in millimeters and analyzed using One Way ANOVA test.* ***Result*** *: The result showed that antibacterial activity of noni fruit extract was active on Porphyromonas gingivalis with Minimum Inhibitory Concentration (MIC) of 3,12% with average of inhibitory zone 8,21 mm. From statistical test showed that there were significant differences of inhibitory zone from each concentration.* ***Conclusion*** *: Noni fruit extract (Morinda citrifolia* L.*) could inhibit the growth of Porphyromonas gingivalis with MIC at 3,12%.*

Keywords *: Noni fruit extract (Morinda citrifolia* L.*), Porphyromonas gingivalis, Minimum Inhibitory Concentration (MIC)*