

## THE DIFFERENCES OF INHIBITION EKSTRAK SIWAK AND EKSTRAK DAUN SIRIH OF TOOTH PASTE TO DECREASE *Streptococcus mutans*

### **Abstract**

**Background.** Dental caries is a bacterial infection in most humans caused by *Streptococcus mutans*. Dental plaque is attached to the material containing the bacteria and its products, which are formed on all surfaces of the teeth. *Streptococcus mutans* are pathogenic bacteria in the mouth which is the main agent causing plaque, gingivitis and dental caries. Herbal toothpaste can prevent decline in *Streptococcus mutans*. **Purpose** this study is to Know the differences in research objectives the inhibition of toothpaste containing extract siwak (*Salvadora Persica*) and betel leaf extract (*pipper betl. Linn*) against *Streptococcus mutans* reduced. **Method** .This is an experimental laboratories study. The study was conducted on 7 subjects that met the sample criteria. Then in 7 subjects were given four times the treatment. After that viewed the characteristics of *Streptococcus mutans* colony to do Gram staining. Performed parametric test Kolmogorov-Smirnov test to determine the data were normally distributed. To find the difference between the reduction in *Streptococcus mutans* each treatment group performed the Mann-Whitney test. **Results** are the average number of *Streptococcus mutans* decreased by the largest toothpaste with a mean Siwak extracts before and after 35.14 102.257 while the reduction in *Streptococcus mutans* toothpaste with a mean of betel leaf extract before and after 103 121. Average reduction of *Streptococcus mutans* on toothpaste contained the smallest non siwak betel with an average before and after 103.57 122.71. In the non Siwak toothpaste and tooth paste and betel nut extracts obtained siwak .002 Sig, which means there is a difference. Then the non Siwak toothpaste toothpaste betel and betel leaf extract obtained Sig 0.700, which means there is no difference. While the Siwak toothpaste and tooth paste extracts of betel leaf extract obtained Sig 0.003, which means no significant difference. **Conclusion.** Toothpaste containing the extract has anti-bacterial siwak against *Streptococcus mutans* greater than toothpaste containing betel leaf extract.

**Keywords:** *Streptococcus mutans*, Siwak and betel leaf toothpaste, dental caries,