

## INTISARI

Plak adalah lapisan tipis yang melekat pada permukaan gigi dan struktur keras lain di rongga mulut. Plak terdiri dari 70% bakteri, seperti *Streptococcus mutans*, *Actinomyces naeslundii*, *Streptococcus sanguinis*, *Niesseria sp.*, dan lain-lain. Daun salam (*Eugenia polyantha* Wight) mengandung favonoid, tanin, dan minyak atsiri yang memiliki aktifitas antibakteri. Penelitian ini bertujuan untuk mengetahui efek rebusan daun salam terhadap pertumbuhan bakteri plak.

Sampel plak diambil dari permukaan bukal gigi molar pertama atas. Sampel kemudian diinokulasi pada media BHI dan diinkubasi dengan suhu 37° C selama 24 jam. Rebusan daun salam konsentrasi 50% (uji) dan akuades (kontrol) ditambahkan kedalam suspensi bakteri 1,5 x 10<sup>8</sup> cfu/ml. Tabung reaksi diinkubasi selama 24 jam pada suhu 37° C. Hasil inkubasi dimasukkan ke dalam BHI agar dan diinkubasi selama 24 jam pada suhu 37° C. Jumlah koloni dihitung secara visual. Analisis data menggunakan *t-test*.

Hasil menunjukkan jumlah koloni pada kelompok uji lebih sedikit dari kelompok kontrol. *T-test* menunjukkan perbedaan tidak bermakna jumlah bakteri antar kelompok ( $p > 0,05$ ). Kesimpulan penelitian ini yaitu rebusan daun salam tidak efektif dalam menurunkan jumlah koloni bakteri plak.

Kata kunci : bakteri plak, rebusan daun salam, jumlah koloni.

## ABSTRACT

*Plaque is a thin layer attached to the tooth surface and other hard structures in the oral cavity. It consists of 70% bacteria such as Streptococcus mutans, Actinomyces naeslundii, Streptococcus sanguinis, Niesseria sp., etc. Bay leaf (Eugenia polyantha Wight) contains flavonoids, tannins, and essential oils which has antibacterial activity. This study aimed to determine the effect of bay leaf decoction on growth of plaque bacteria.*

*Plaque was taken from the buccal surface of upper first molar. The sampel was then inoculated in BHI media and incubated at 37°C for 24 hours. Fifty percent bay leaf decoction (treatment) and distilled water (control) was added into  $1,5 \times 10^8$  CFU /ml bacterial suspension. The tube was incubated for 24 hours at 37°C. Sampel was cultured on BHI agar, then incubated at 37°C for 24 hours. The number of colonies grow on the agar were counted visually. Data were analyzed using T-test.*

*Result showed the number of colonies of the treatment group was lower than the control group. T-test showed no significant difference between the groups ( $p > 0.05$ ). In conclusion, 50% bay leaf decoction is not effective in reducing the number of bacterial colonies plaque.*

*Keyword : plaque bacteria, bay leaf decoction, the number of colonies.*