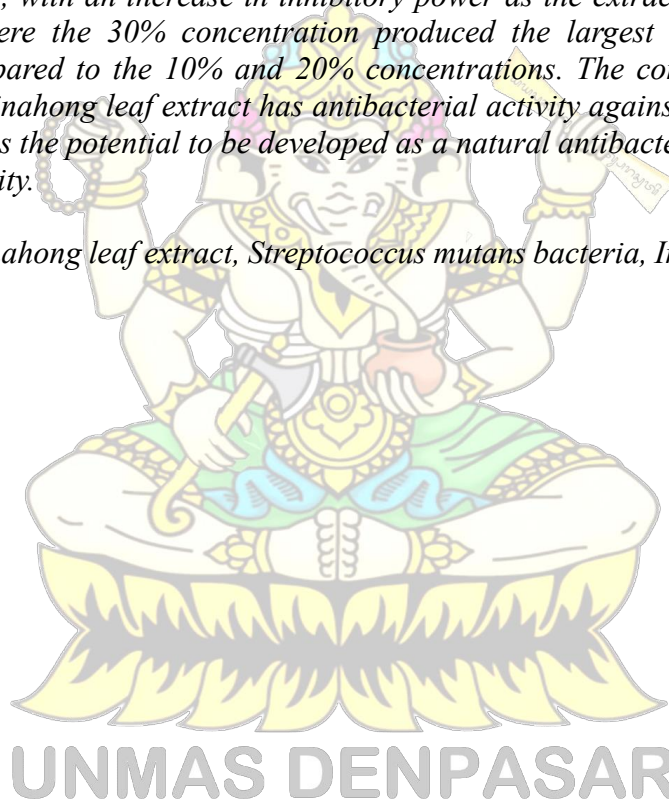


ABSTRACT

Streptococcus mutans is the main bacterium responsible for dental caries due to its ability to form plaque and produce acid. Dental caries prevention can be achieved by utilizing natural ingredients with antibacterial properties, one of which is binahong leaves (*Anredera cordifolia*), known to contain bioactive compounds such as flavonoids, alkaloids, terpenoids, saponins, tannins, steroids, and phenols. This study aimed to determine the inhibitory effect of binahong leaf extract on the growth of *Streptococcus mutans* bacteria. This was a laboratory experimental study using the disk diffusion method on agar media. Binahong leaf extract was tested at three concentrations, namely 10%, 20%, and 30%, and then the diameter of the inhibition zone formed around the disk was measured. The results showed that binahong leaf extract was able to inhibit the growth of *Streptococcus mutans* bacteria at all test concentrations, with an increase in inhibitory power as the extract concentration increased, where the 30% concentration produced the largest inhibition zone diameter compared to the 10% and 20% concentrations. The conclusion of this study is that binahong leaf extract has antibacterial activity against *Streptococcus mutans* and has the potential to be developed as a natural antibacterial alternative in the oral cavity.

Keywords: Binahong leaf extract, *Streptococcus mutans* bacteria, Inhibitory power



ABSTRAK

Streptococcus mutans merupakan bakteri utama yang berperan dalam terjadinya karies gigi akibat kemampuannya membentuk plak dan menghasilkan asam. Upaya pencegahan karies gigi dapat dilakukan dengan pemanfaatan bahan alami yang memiliki aktivitas antibakteri, salah satunya daun binahong (*Anredera cordifolia*) yang diketahui mengandung senyawa bioaktif seperti flavonoid, alkaloid, terpenoid, saponin, tanin, steroid, dan fenol. Penelitian ini bertujuan untuk mengetahui daya hambat ekstrak daun binahong terhadap pertumbuhan bakteri *Streptococcus mutans*. Penelitian ini merupakan penelitian eksperimental laboratorium dengan metode difusi cakram pada media agar. Ekstrak daun binahong diuji pada tiga konsentrasi, yaitu 10%, 20%, dan 30%, kemudian diukur diameter zona hambat yang terbentuk di sekitar cakram. Hasil penelitian menunjukkan bahwa ekstrak daun binahong mampu menghambat pertumbuhan bakteri *Streptococcus mutans* pada seluruh konsentrasi uji, dengan peningkatan daya hambat seiring bertambahnya konsentrasi ekstrak, di mana konsentrasi 30% menghasilkan diameter zona hambat terbesar dibandingkan konsentrasi 10% dan 20%. Simpulan penelitian ini adalah ekstrak daun binahong memiliki aktivitas antibakteri terhadap *Streptococcus mutans* dan berpotensi dikembangkan sebagai alternatif antibakteri alami dalam rongga mulut.

Kata kunci: Ekstrak daun binahong, Bakteri *Streptococcus mutans*, Daya hambat

