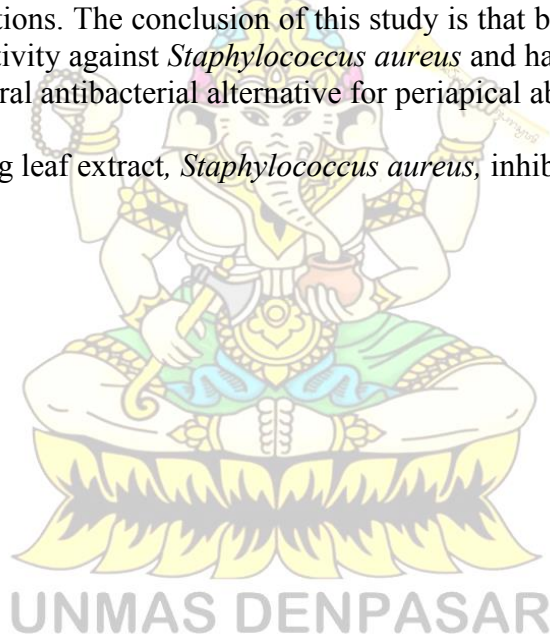


ABSTRACT

Staphylococcus aureus is a gram-positive bacterium that is one of the causes of infections in periapical tissues, including periapical abscesses in children. Periapical tissue infections can be managed through the use of natural substances with antibacterial properties, one of which is binahong leaf (*Anredera cordifolia*), which is known to contain bioactive compounds such as flavonoids, alkaloids, terpenoids, saponins, tannins, steroids, and phenols. This study aimed to determine the inhibition zone of binahong leaf extract against the growth of *Staphylococcus aureus*. This research was a laboratory experimental study using the disc diffusion method (*Kirby bauer*). Binahong leaf extract was tested at three concentrations, namely 10%, 20%, and 30%, and the diameter of the inhibition zone formed around the disc was measured. The results showed that binahong leaf extract was able to inhibit the growth of *Staphylococcus aureus* at all tested concentrations, with an increase in the inhibition zone 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 *Staphylococcus aureus* and has the potential to be developed as a natural antibacterial alternative for periapical abscesses in children.

Keywords: binahong leaf extract, *Staphylococcus aureus*, inhibition zone.



ABSTRAK

Staphylococcus aureus merupakan bakteri gram positif yang berperan sebagai salah satu penyebab infeksi pada jaringan periapikal, termasuk abses periapikal pada anak. Upaya penanganan infeksi jaringan periapikal dapat dilakukan dengan pemanfaatan bahan alami yang memiliki kandungan antibakteri, salah satunya daun binahong (*Anredera cordifolia*) yang diketahui mengandung senyawa bioaktif seperti flavonoid, fenol, steroid, alkaloid, terpenoid, saponin, dan tanin. Penelitian ini bertujuan untuk mengetahui zona hambat ekstrak daun binahong terhadap pertumbuhan bakteri *Staphylococcus aureus*. Penelitian ini merupakan penelitian eksperimental laboratorium dengan metode difusi cakram (*Kirby bauer*). 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 *Staphylococcus aureus* pada seluruh konsentrasi uji, dengan peningkatan zona 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 konsentrasi 10%, 20%, dan 30% memiliki aktivitas antibakteri terhadap *Staphylococcus aureus* dan berpotensi dikembangkan sebagai alternatif antibakteri alami pada abses periapikal anak.

Kata kunci: ekstrak daun binahong, *Staphylococcus aureus*, zona hambat.

