

ABSTRAK

Latar Belakang : Karies gigi merupakan masalah umum yang dialami masyarakat Indonesia, khususnya anak-anak. Banyak perkembangan penelitian mengenai tanaman herbal yang dapat menyembuhkan karies gigi, salah satunya dengan daun binahong (*Anredera cordifolia* (Ten.) Steenis). Daun binahong terbukti memiliki senyawa alkaloid, tanin, saponin dan polifenol yang memiliki aktivitas antibakteri. Tujuan penelitian ini adalah untuk mengetahui aktivitas ekstrak etil asetat daun binahong dalam menghambat bakteri *Streptococcus mutans*.

Metode: Pembuatan ekstrak daun binahong dilakukan dengan metode maserasi, yaitu dengan menggunakan pelarut etil asetat. Filtrat yang diperoleh kemudian diuapkan menggunakan rotary evaporator untuk memperoleh ekstrak kental. Hasil ekstrak diujikan terhadap bakteri *Streptococcus mutans* dengan metode difusi disk dengan konsentrasi 5%, 10%, 15%, 20%, 25% kontrol negatif (aquabides), dan kontrol positif (Klorheksidin). Deteksi kandungan senyawa metabolit sekunder menggunakan metode skrining fitokimia.

Hasil: Skrining fitokimia ekstrak etil asetat daun binahong mengandung tanin, polifenol, alkaloid, saponin. Ekstrak etil asetat daun binahong memiliki aktivitas antibakteri terhadap bakteri *Streptococcus mutans* dengan rerata zona hambat ekstrak etil asetat daun binahong 5% (0 mm), 10% (0 mm), 15% (6,66 mm), 20% (9,10 mm), dan 25% (13,47 mm). Kontrol positif (15,83 mm), Kontrol negatif (0 mm). Terdapat perbedaan yang bermakna antara kelompok kontrol negatif dengan semua konsentrasi ($p < 0,05$), serta terdapat perbedaan bermakna antara kelompok kontrol positif dengan semua konsentrasi ($p < 0,05$).

Kesimpulan: Penelitian ini adalah ekstrak etil asetat daun binahong (*Anredera cordifolia* (Ten.) Steenis) memiliki aktivitas antibakteri terhadap penghambatan *Streptococcus mutans*.

Kata kunci: Antibakteri, daun binahong (*Anredera cordifolia* (Ten.) Steenis), *Streptococcus mutans*

ABSTRACT

Background: Dental caries is a common problem experienced by Indonesian people, especially children. Many developments of research on herbs that can cure dental caries, one with the leaves of binahong (*Anredera cordifolia* (Ten.) Steenis). Binahong leaf proved to have alkaloid compounds, tannins, saponins and polyphenols that have antibacterial activity. The purpose of this research is to know the activity of ethyl acetate extract of binahong leaf in inhibiting *Streptococcus mutans* bacteria.

Methods: Binahong leaves were extracted using by maceration method with ethyl acetate solvent. The extract was prepared into different concentrations (5%, 10%, 15%, 20%, 25%) and tested for antibacterial activity by agar well diffusion method. Secondary metabolite compounds were identified using phytochemical screening method.

Results: tannins, polyphenols, alkaloids, saponins were detected in the extract. The inhibition zone of Ethyl acetate extract of binahong leaf at the concentration of 5%, 10%, 15%, 20%, 25% were 0 mm, 0 mm of ethyl acetate leaf extract, 15% (6,66 mm), 20% (9,10 mm), and 25% (13,47 mm) respectively. The inhibition zone in Positive and negative control was 15,83 mm, 0 mm respectively. There was a significant difference between the negative control group and all concentrations ($p < 0.05$) and there was a significant difference between the positive control group and all the concentrations ($p < 0.05$).

Conclusion: the ethyl acetate extract of binahong (*Anredera cordifolia* (Ten.) Steenis) leaves has an antibacterial activity against *Streptococcus mutans*.

Keywords: Antibacterial, leaf binahong (*Anredera cordifolia* (Ten.) Steenis), *Streptococcus mutans*