ABSTRAK

Latar Belakang : Karies gigi masih menjadi masalah kesehatan mulut utama di Indonesia, dengan *Streptococcus mutans* sebagai bakteri pionir penyebabnya. Penggunaan antibakteri kimia seperti klorheksidin memiliki efek samping, sehingga diperlukan alternatif alami. Tumbuhan Gletang (*Tridax procumbens L.*) dilaporkan memiliki potensi antibakteri, namun penelitian tentang fraksi spesifik dari bunganya masih terbatas. Penelitian ini bertujuan untuk menguji aktivitas antibakteri fraksi n-heksan bunga gletang dan perbedaannya pada berbagai konsentrasi terhadap pertumbuhan *Streptococcus mutans*. **Tujuan Penelitian** : mengetahui aktivitas antibakteri fraksi n-heksan bunga gletang dengan konsentrasi 2.5%, 5%, 7.5% dan 10% terhadap bakteri *Streptococcus mutans*. **Metode Penelitian** : Penelitian ini menggunakan metode eksperimental Laboratorium dengan *post-test only control group design*. Sampel pada penelitian ini adalah bakteri *Streptococcus mutans* , jumlah kelompok perlakuan dalam penelitian ada 6 perlakuan dengan konsentrasi 2.5%, 5%, 7.5% dan 10% serta kontrol positif (klorheksidin 0,2%) dan kontrol negatif (metanol 96%) dengan 24 sampel. Aktivitas antibakteri diuji menggunakan metode difusi agar dengan menggunakan pelarut fraksi n-heksan dan data dianalisis menggunakan uji *Kruskall-Walls* dan uji *Mann-Whitney.* **Hasil Penelitian** : Semua konsentrasi fraksi n-heksan bunga gletang memiliki aktivitas antibakteri kuat dengan rerata diameter zona hambat sebagai berikut: 10,55 mm (2,5%), 13,05 mm (5%), 14,6 mm (7,5%) , 16,725 mm (10%) dan 7,675 mm (klorheksidin 0,2%). Hasil uji *Mann-Whitney* menunjukkan perbedaan signifikan antara kelompok perlakuan dan kontrol positif (klorheksidin 0,2%) ($p < 0,05$), sedangkan perbandingan antar konsentrasi fraksi tidak menunjukkan perbedaan signifikan ($p > 0,05$). Hal ini menunjukkan bahwa peningkatan konsentrasi hanya memperkuat daya hambat tetapi tidak berbeda nyata antar konsentrasi. Aktivitas antibakteri diduga berasal dari senyawa lipofilik seperti terpenoid yang terdapat dalam fraksi n-heksan. **Kesimpulan** : Fraksi n-heksan bunga gletang (*Tridax procumbens L.*) pada konsentrasi 2.5%, 5%, 7.5%, dan 10% menunjukkan aktivitas antibakteri terhadap *Streptococcus mutans*. Aktivitas antibakteri berbeda antar konsentrasi fraksi, dan perbedaan yang signifikan ditemukan antara kelompok uji dan kontrol positif yaitu klorheksidin 0,2%.

Kata Kunci : Antibakteri, Bunga Gletang, Fraksi n-heksan, *Streptococcus mutans*, *Tridax procumbens L.*, Zona Hambat.

ABSTRACT

***Background**: Dental caries remains a major oral health problem in Indonesia, with Streptococcus mutans as the primary cause. The use of chemical antibacterials such as chlorhexidine has side effects, necessitating natural alternatives. The Gletang plant (Tridax procumbens L.) has been reported to have antibacterial potential, but research on specific fractions of its flowers is still limited. This study aims to test the antibacterial activity of the n-hexane fraction of gletang flowers and its differences at various concentrations against the growth of Streptococcus mutans.* ***Research Objective**: To determine the antibacterial activity of the n-hexane fraction of gletang flowers with concentrations of 2.5%, 5%, 7.5% and 10% against Streptococcus mutans.* ***Research Method**: This study used a laboratory experimental method with a post-test only control group design. The sample in this study was Streptococcus mutans bacteria, the number of treatment groups in the study were 6 treatments with concentrations of 2.5%, 5%, 7.5% and 10% as well as positive control (0.2% chlorhexidine) and negative control (96% methanol) with 24 samples. Antibacterial activity was tested using the agar diffusion method using n-hexane fraction solvent and data were analyzed using the Kruskall-Walls test and the Mann-Whitney test.* ***Research Results**: All concentrations of n-hexane fraction of gletang flowers have strong antibacterial activity with the average diameter of the inhibition zone as follows: 10.55 mm (2.5%), 13.05 mm (5%), 14.6 mm (7.5%), 16.725 mm (10%) and 7.675 mm (0.2% chlorhexidine). The Mann-Whitney test results showed a significant difference between the treatment group and the positive control (0.2% chlorhexidine) ($p < 0.05$), while the comparison between fraction concentrations did not show a significant difference ($p > 0.05$). This indicates that increasing the concentration only strengthens the inhibitory power but is not significantly different between concentrations. Antibacterial activity is thought to originate from lipophilic compounds such as terpenoids contained in the n-hexane fraction.* ***Conclusion**: The n-hexane fraction of gletang flowers (Tridax procumbens L.) at concentrations of 2.5%, 5%, 7.5%, and 10% showed antibacterial activity against Streptococcus mutans. Antibacterial activity differed between fraction concentrations, and a significant difference was found between the test group and the positive control, namely 0.2% chlorhexidine.*

Keyword : Antibacterial, Gletang Flower, n-hexane Fraction, Streptococcus mutans, Tridax procumbens L., Inhibition Zone.