

## ABSTRAK

Infeksi jaringan lunak dan kulit yang sering dialami pasien diabetes adalah furunkel, abses, dan gangrene, yang disebabkan oleh *Staphylococcus aureus* yang merupakan bakteri gram positif. Intensitas penggunaan antibiotik yang relative tinggi menimbulkan berbagai permasalahan dan merupakan ancaman global bagi kesehatan terutama resistensi bakteri terhadap antibiotik. WHO merekomendasikan penggunaan obat tradisional termasuk obat herbal dalam pemeliharaan kesehatan masyarakat, pencegahan, dan pengobatan penyakit. Daun pegagan (*Centella asiatica* (L) urban) memiliki komponen bioaktif yang memiliki daya antibakteri.

Penelitian ini bertujuan untuk mengetahui adanya aktivitas antibakteri ekstrak daun pegagan (*Centella asiatica*) terhadap bakteri *Staphylococcus aureus* yang diisolasi dari luka pasien diabetes mellitus dan melihat senyawa metabolit sekunder yang terkandung dalam ekstrak. Ekstrak daun pegagan (*Centella asiatica*) dibuat dengan metode maserasi dan dibuat dalam beberapa konsentrasi, yaitu 12,5%, 25%, 50%, 75%, dan 100%.

Hasil penelitian menunjukkan bahwa ekstrak daun pegagan (*Centella asiatica*) mengandung beberapa senyawa metabolit sekunder, antara lain saponin, steroid, tannin, alkaloid, dan flavonoid. Rata – rata zona hambat pada konsentrasi 12,5 % (7.2 mm), 25% (11mm), 50% (13.7mm), 75% (14,3mm), dan 100% (19.5mm). Analisis statistic yang digunakan yaitu uji *one way annova*, dimana didapatkan signifikansi 0,000 ( $p < 0,05$ ).

**Kata kunci** : diabetes mellitus, daun pegagan (*Centella asiatica*), anti bakteri

## ABSTRACT

Soft tissue and skin infections that diabetes patients often experience are furuncles, abscesses and gangrene, which are caused by *Staphylococcus aureus* which is a gram-positive bacteria. The relatively high intensity of antibiotic use causes various problems and is a global threat to health, especially bacterial resistance to antibiotics. WHO recommends the use of traditional medicines including herbal medicines in maintaining public health, preventing and treating disease. Gotu kola leaves (*Centella asiatica (L) urban*) have bioactive components that have antibacterial power.

This study aims to determine the antibacterial activity of gotu kola leaf extract (*Centella asiatica*) against *Staphylococcus aureus* bacteria isolated from wounds of diabetes mellitus patients and to look at the secondary metabolite compounds contained in the extract. Gotu Kola leaf extract (*Centella asiatica*) is made using the maceration method and is made in several concentrations, namely 12.5%, 25%, 50%, 75% and 100%.

The research results showed that gotu kola (*Centella asiatica*) leaf extract contains several secondary metabolite compounds, including saponins, steroids, tannins, alkaloids and flavonoids. Average inhibition zones at concentrations of 12.5% (7.2 mm), 25% (11mm), 50% (13.7mm), 75% (14.3mm), and 100% (19.5mm). The statistical analysis used was the one way ANOVA test, where a significance of 0.000 was obtained ( $p < 0.05$ ).

**Keywords:** diabetes mellitus, gotu kola leaves (*Centella asiatica*), anti-bacterial