

**FAKULTAS KEDOKTERAN  
UNIVERSITAS PEMBANGUNAN NASIONAL “VETERAN” JAKARTA**

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**Aktivitas Antibakteri Ekstrak Daun Ungu (*Graptophyllum pictum* (L.) Griff)  
Terhadap Bakteri *Streptococcus pneumoniae* dan *Klebsiella pneumoniae***

RINCIAN HALAMAN (xvii + 66 halaman, 17 tabel, 5 gambar, 9 lampiran)

**ABSTRAK**

**Latar Belakang**

Penggunaan antibiotik profilaksis menjadi salah satu faktor resiko infeksi bakteri resisten antibiotik pada pasien lansia dengan *Stroke-associated pneumonia* (SAP) yang menyebabkan kebutuhan akan alternatif antibakteri bahan alam untuk memberantas infeksi akibat bakteri resisten antimikroba. Daun Ungu (*Graptophyllum pictum* (L.) Griff) mengandung zat bioaktif yang dapat mengganggu proses replikasi dan metabolisme bakteri. Penelitian ini bertujuan untuk melihat kemampuan ekstrak Daun Ungu (*G. pictum*) dalam menghambat pertumbuhan *Streptococcus pneumoniae* dan *Klebsiella pneumoniae*.

**Metode**

Penelitian ini termasuk eksperimental murni menggunakan ekstrak daun ungu dengan konsentrasi 3,12 ppm; 6,25 ppm; 12,5 ppm; 25 ppm; 50 ppm; 100 ppm. Dilakukan uji mikrodilusi dan uji difusi cakram untuk memperoleh nilai konsentrasi hambat minimum, konsentrasi bunuh minimum, dan diameter zona hambat yang terbentuk. Seluruh data yang diperoleh diuji untuk melihat perbedaan hasil yang ditimbulkan tiap konsentrasi dan perbedaan hasil yang terjadi antara spesimen uji

**Hasil**

Diperoleh hasil untuk konsentrasi 100 ppm masuk dalam kategori antibakteri kuat, 25 ppm dan 50 ppm masuk dalam kategori antibakteri sedang, dan konsentrasi 3,12 ppm masuk dalam kategori lemah terhadap *S. pneumoniae*. Sedangkan pada pengujian terhadap bakteri *K. pneumoniae* tidak didapatkan aktivitas antibakteri untuk seluruh konsentrasi uji.

**Kesimpulan**

Berdasarkan perolehan data, Ekstrak Daun Ungu (*G. pictum*) memiliki kemampuan dalam menghambat pertumbuhan bakteri *S. pneumoniae*, namun tidak mampu menghambat pertumbuhan bakteri *K. pneumoniae* pada seluruh konsentrasi uji.

**Daftar Pustaka** : 49 (1977 - 2024)

**Kata Kunci** : Antibakteri, Daun ungu, *Graptophyllum pictum*, *Streptococcus pneumoniae*, *Klebsiella pneumoniae*, *Streptococcus pneumoniae*,

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**Undergraduate Thesis, July 2024**

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**Antibacterial Effect of *Graptophyllum pictum* (Purple Leaf) Extract Towards  
*Streptococcus pneumoniae* and *Klebsiella pneumoniae***

PAGE DETAIL (xvii + 66 pages, 17 tables, 5 pictures, 9 appendices)

**ABSTRACT**

**Introduction**

Stroke-associated pneumonia is a common stroke complication caused by bacterial infections with an increased risk of antimicrobial resistance organism infection in elderly patients through prophylactic use of antimicrobial agents. As such, herbal drug alternatives are needed to eradicate the incidence of antimicrobial resistance infections. *Graptophyllum pictum* (L.) Griff (Purple leaf) has been shown to have antimicrobial properties through disrupting bacteria replication and metabolism. This research was conducted to observe the antimicrobial activity of *G. pictum* extract on *Streptococcus pneumoniae* and *Klebsiella pneumoniae*.

**Method**

This research was a true experimental research model using 3,12 ppm; 6,25 ppm; 12,5 ppm; 25 ppm; 50 ppm; 100 ppm of *G. pictum* (Purple leaf) extracts concentrations, Minimum inhibitory concentration, minimum bactericidal concentration, and zone of inhibition formation was observed through the microdilution and disc diffusion method on *S. pneumoniae* and *K. pneumoniae* growth. The data was analyzed to determine the mean difference of each concentration and the result difference between the two groups

**Result**

Based on the research results, it was found that *G. pictum* (Purple leaf) extract has a strong antibacterial effect on 100 ppm concentration, an intermediate antibacterial effect on 50 ppm and 25 ppm, and weak antibacterial effect on 3,12 ppm concentration against *S. pneumoniae*. In testing against *K. pneumoniae* bacteria, no antibacterial activity was found in all tested concentrations. concentration

**Conclusion**

Based on the research results, antibacterial activity of *G. pictum* (Purple leaf) extract was found against *S. pneumoniae*, whilst no antibacterial activity was found against *K. pneumoniae*.

**Reference** : 49 (1977 - 2024)

**Keywords** : *Caricature plant, Graptophyllum pictum, Antibacterial Activity, Streptococcus pneumoniae, Klebsiella pneumoniae*