

ABSTRAK

Nama : Tazkia Aqilah

Program Studi : Fakultas Kedokteran

Judul : Efektivitas Ekstrak Daun Gedi Merah (*Abelmoschus manihot L*) Terhadap Pertumbuhan Bakteri *Shigella Dysenteriae* Serta Tinjaunnya Dalam Pandangan Islam

Latar Belakang: Gedi merah (*Abelmoschus Manihot L.*) merupakan tanaman obat tradisional yang mengandung berbagai senyawa aktif seperti flavonoid, saponin, dan tanin yang berpotensi sebagai antibakteri. Penelitian ini bertujuan untuk menilai efektivitas antibakteri dan menentukan konsentrasi optimal ekstrak daun gedi merah terhadap pertumbuhan bakteri *Shigella dysenteriae*.

Metode: Teknik difusi cakram (*disc diffusion*), ekstrak diperoleh melalui metode maserasi menggunakan pelarut etanol 96%, yang selanjutnya diuji pada lima variasi konsentrasi yaitu 10.000 ppm, 15. 000 ppm, 20.000 ppm, 25.000 ppm, dan 30.000 ppm.

Hasil: Pada seluruh konsentrasi ekstrak tidak terbentuk zona hambat (*clear zone*) yang dapat diukur, melainkan munculnya granul atau endapan di sekitar cakram uji yang menutupi area observasi. Sebaliknya, kontrol positif ciprofloxacin menunjukkan zona hambat yang luas sebesar 40 mm. terbentuknya granulasi ini mengindikasikan adanya kendala pada proses difusi molekul aktif yang dipengaruhi oleh karakteristik senyawa molekul besar, faktor teknis aplikasi volume ekstrak, serta kondisi lingkungan selama masa pengerjaan.

Kesimpulan: Aktivitas antibakteri ekstrak daun gedi merah belum dapat ditentukan secara kuantitatif melalui metode difusi cakram akibat hambatan fisik difusi.

Saran: Melakukan pengujian ulang menggunakan metode mikrodilusi atau Kadar Hambat Minimum (KHM) dalam media cair untuk mendapatkan hasil yang lebih homogen dan akurat.

Kata Kunci: Ekstrak Daun Gedi Merah, *Shigella dysenteriae*, Zona hambat.

ABSTRACT

Name : Tazkia Aqilah

Study Program: Faculty of Medicine

Title : Effectiveness Of Red Gedi Leaf Extract (Abelmoschus Manihot L.) Against The Growth Of Shigella Dysenteriae Bacteria And Its Review From An Islamic Perspective

Background: *Red gedi (Abelmoschus manihot L.) is a traditional medicinal plant containing various active compounds such as flavonoids, saponins, and tannins, which possess potential antibacterial properties. This study aims to evaluate the antibacterial effectiveness and determine the optimal concentration of red gedi leaf extract against the growth of Shigella dysenteriae bacteria.*

Methods: *The study employed the disc diffusion technique. The extract was obtained through the maceration method using 96% ethanol as a solvent, which was subsequently tested at five variation concentrations: 10,000 ppm, 15,000 ppm, 20,000 ppm, 25,000 ppm, and 30,000 ppm.*

Results: *At all extract concentrations, no measurable inhibition zones (clear zones) were formed. Instead, granules or precipitates appeared around the test discs, covering the observation area. In contrast, the positive control, ciprofloxacin, showed a wide inhibition zone of 40 mm. The formation of this granulation indicates obstacles in the diffusion process of active molecules, influenced by the characteristics of large molecular compounds, technical factors in extract volume application, and environmental conditions during the experimental period.*

Conclusion: *The antibacterial activity of red gedi leaf extract could not be determined quantitatively through the disc diffusion method due to physical diffusion barriers.*

Suggestions: *It is recommended to conduct re-testing using the microdilution or Minimum Inhibitory Concentration (MIC) method in liquid media to obtain more homogeneous and accurate results.*

Keywords: *Red Gedi Leaf Extract, Shigella dysenteriae, Inhibition zone.*