

## ABSTRAK

Infeksi bakteri *Helicobacter pylori* merupakan penyebab utama penyakit *gastroduodenal*, termasuk tukak lambung dan kanker lambung, dengan prevalensi tinggi di Indonesia. Tantangan resistensi antibiotik terhadap terapi standar mendorong pencarian alternatif pengobatan alami yang aman dan efektif. Penelitian ini bertujuan untuk menguji potensi dan efektivitas antibakteri ekstrak daun gambir (*Uncaria gambir roxb*) terhadap pertumbuhan *Helicobacter Pylori*.

Penelitian ini menggunakan metode eksperimental laboratorium dengan ekstraksi maserasi menggunakan etanol 96%. Uji skrining fitokimia dilakukan untuk mengidentifikasi kandungan senyawa aktif, dan uji aktivitas antibakteri menggunakan metode difusi cakram dengan konsentrasi ekstrak 10%, 20%, 30%, 50%, serta kloramfenikol sebagai kontrol positif.

Hasil skrining fitokimia menunjukkan bahwa ekstrak daun gambir positif mengandung flavonoid, alkaloid, tanin, saponin, dan terpenoid. Hasil uji aktivitas antibakteri menunjukkan bahwa ekstrak daun gambir efektif menghambat pertumbuhan *Helicobacter Pylori*. Diameter zona hambat rata-rata meningkat seiring peningkatan konsentrasi, yaitu 8,43 mm (10%), 9,38 (20%), 10,41 (30%), dan mencapai 11,15 mm pada konsentrasi 50%. Berdasarkan kategori daya hambat, konsentrasi 50% diklasifikasikan memiliki aktivitas antibakteri kuat. Disimpulkan bahwa ekstrak daun gambir (*Uncaria gambir roxb*) memiliki potensi besar sebagai agen antibakteri alami terhadap *Helicobacter pylori*. Aktivitas ini diperkirakan berasal dari sinergisenyawa metabolit sekunder, khususnya tanin dan flavonoid, yang bekerja merusak dinding sel dan menghambat aktivitas enzim bakteri. Penelitian ini mendukung pemanfaatan daun gambir sebagai alternatif terapi alami untuk infeksi *Helicobacter Pylori*.

**Kata kunci:** Antibakteri, *Uncaria gambir Roxb*, *Helicobacter pylori*, Zona hambat.

## ABSTRACT

*Helicobacter pylori* bacterial infection is the main cause of *gastroduodenal* diseases, including gastric ulcers and gastric cancer, with a high prevalence in Indonesia. The challenge of antibiotic resistance to standard therapy has prompted the search for safe and effective natural alternatives. This study aims to test the potential and effectiveness of gambir leaf extract (*Uncaria gambir Roxb*) against the growth of *Helicobacter pylori*.

This study used a laboratory experimental method with maceration extraction using 96% ethanol. Phytochemical screening tests were conducted to identify the active compound content, and antibacterial activity tests were conducted using the disc diffusion method with extract concentrations of 10%, 20%, 30%, 50%, and chloramphenicol as a positive control.

The phytochemical screening results showed that gambir leaf extract contained flavonoids, alkaloids, tannins, saponins, and terpenoids. The antibacterial activity test results showed that gambir leaf extract effectively inhibited the growth of *Helicobacter pylori*. The average inhibition zone diameter increased with increasing concentration, namely 8.43 mm (10%), 9.38 (20%), 10.41 (30%), and reached 11.15 mm at a concentration of 50%. Based on the inhibition category, a concentration of 50% is classified as having strong antibacterial activity. It is concluded that gambir leaf extract (*Uncaria gambir Roxb*) has great potential as a natural antibacterial agent against *Helicobacter pylori*. This activity is thought to originate from the synergistic action of secondary metabolites, particularly tannins and flavonoids, which work to damage cell walls and inhibit bacterial enzyme activity. This study supports the use of gambir leaves as a natural alternative therapy for *Helicobacter pylori* infections.

**Keywords:** Antibacterial, *Uncaria gambir Roxb*, *Helicobacter pylori*, Inhibition zone.