

ABSTRAK

Kebersihan rongga mulut yang buruk dapat memicu pertumbuhan bakteri patogen seperti *Enterococcus faecalis*, *Pseudomonas aeruginosa*, dan *Staphylococcus aureus* yang berpotensi menyebabkan infeksi endodontik dan sistemik. Penggunaan antiseptik konvensional seperti *povidone-iodine* (PVP-I) efektif namun memiliki efek toksik jika digunakan berlebihan. Jarak Cina (*Jatropha multifida* Linn.) dikenal memiliki senyawa bioaktif yang berpotensi sebagai antiseptik alami. Penelitian eksperimental *in vitro* menggunakan ekstrak getah batang Jarak Cina dengan variasi konsentrasi 10%, 20%, 30%, 40%, dan 50%. Uji fitokimia dilakukan untuk mengidentifikasi senyawa bioaktif, dan uji antibakteri menggunakan metode difusi cakram terhadap *E. faecalis*, *P. aeruginosa*, dan *S. aureus*. *Povidone-iodine* 1% digunakan sebagai kontrol positif. Hasil penelitian ini berhasil mengevaluasi ekstrak getah batang Jarak Cina yang terbukti mengandung senyawa bioaktif berupa flavonoid, tanin, dan polifenol yang memiliki aktivitas antibakteri. Konsentrasi optimal ditemukan pada 30% yang menghasilkan zona hambat paling konsisten terhadap ketiga bakteri patogen: *S. aureus* (14,56 mm), *P. aeruginosa* (14,11 mm), dan *E. faecalis* (13,54 mm). Efektivitas ini sebanding dengan kontrol positif *povidone-iodine* 1%.

Kata kunci: *Jarak Cina*, antiseptik, fitokimia, rongga mulut.

ABSTRACT

Poor oral hygiene can trigger the growth of pathogenic bacteria such as Enterococcus faecalis, Pseudomonas aeruginosa, and Staphylococcus aureus, which potentially cause endodontic and systemic infections. The use of conventional antiseptics such as povidone-iodine (PVP-I) is effective but has toxic effects if used excessively. Coral plant (Jatropha multifida Linn.) is known to contain bioactive compounds with potential as a natural antiseptic. An experimental in vitro study using coral plant stem latex extract with concentration variations of 10%, 20%, 30%, 40%, and 50%. Phytochemical tests were conducted to identify bioactive compounds, and antibacterial tests used disc diffusion method against E. faecalis, P. aeruginosa, and S. aureus. Povidone-iodine 1% was used as positive control. Coral plant stem latex extract proved to contain bioactive compounds including flavonoids, tannins, and polyphenols with antibacterial activity. The optimal concentration was found at 30%, producing the most consistent inhibition zones against all three pathogenic bacteria: S. aureus (14.56 mm), P. aeruginosa (14.11 mm), and E. faecalis (13.54 mm). This effectiveness was comparable to the positive control povidone-iodine 1%.

Keywords: Coral plant, antiseptic, phytochemical, oral cavity.