ABSTRAK

Penyakit infeksi jamur merupakan masalah kesehatan yang sering terjadi di Indonesia, terutama karena iklim tropis dengan suhu panas dan kelembaban tinggi yang mendukung pertumbuhan jamur. *Candida albicans* merupakan salah satu jamur yang dapat menimbulkan berbagai infeksi pada manusia. Kangkung pagar (*Ipomoea carnea* Jacq.) diketahui memiliki potensi farmakologis, termasuk aktivitas antijamur. Penelitian ini bertujuan untuk mengetahui kandungan metabolit sekunder ekstrak etanol daun kangkung pagar melalui analisis LC-MS serta mengevaluasi aktivitas antijamurnya terhadap *Candida albicans*. Metode penelitian meliputi ekstraksi daun kangkung pagar dengan pelarut etanol kemudian diuji aktivitas antijamurnya menggunakan metode difusi agar dengan variasi konsentrasi 100%, 50%, 25%, 12,5%, 6,25%, dan 3,12%. Konsentrasi Hambat Minimum (KHM) ditentukan berdasarkan diameter zona hambat. Analisis metabolit sekunder dilakukan dengan LC-MS untuk mengidentifikasi senyawa bioaktif. Hasil penelitian menunjukkan bahwa ekstrak etanol daun kangkung pagar memiliki aktivitas antijamur paling kuat. Konsentrasi 100% menghasilkan zona hambat sebesar 28,16 mm (kategori sangat kuat), sedangkan KHM tercapai pada konsentrasi 6,25% dengan zona hambat 9,66 mm. Analisis LC-MS mengidentifikasi keberadaan metabolit sekunder berupa alkaloid ($C_{39}H_{40}N_8O_5$, $C_{36}H_{54}N_8O_5$), glikosida ($C_{18}H_{32}N_2O_{11}$), terpenoid ($C_{39}H_{50}O_{10}$), dan flavonoid ($C_{12}H_{12}N_2O_4$), yang diketahui berperan dalam mekanisme antifungi. Ekstrak etanol daun kangkung pagar berpotensi sebagai agen antijamur alami terhadap *Candida albicans* dengan KHM pada konsentrasi 6,25%, didukung oleh keberagaman metabolit sekunder yang teridentifikasi melalui LC-MS.

Kata kunci: *Candida albicans*, *Ipomoea carnea* Jacq., antijamur, LC-MS, metabolit sekunder.

ABSTRACT

Fungal infections are a common health problem in Indonesia, primarily due to the tropical climate with its hot temperatures and high humidity that support fungal growth. Candida albicans is one of the fungi that can cause various infections in humans. Currant water spinach (Ipomoea carnea Jacq.) is known to have pharmacological potential, including antifungal activity. This study aims to determine the secondary metabolite content of ethanol extract of currant water spinach leaves through LC-MS analysis and evaluate its antifungal activity against Candida albicans. The research method includes extracting currant water spinach leaves with ethanol solvent and then testing their antifungal activity using the agar diffusion method with various concentrations of 100%, 50%, 25%, 12.5%, 6.25%, and 3.12%. The Minimum Inhibitory Concentration (MIC) is determined based on the diameter of the inhibition zone. Secondary metabolite analysis was carried out using LC-MS to identify bioactive compounds. The results showed that the ethanol extract of currant water spinach leaves had the strongest antifungal activity. A 100% concentration produced an inhibition zone of 28.16 mm (very strong), while the MIC was achieved at a concentration of 6.25% with an inhibition zone of 9.66 mm. LC-MS analysis identified the presence of secondary metabolites in the form of alkaloids ($C_{39}H_{40}N_8O_5$, $C_{36}H_{54}N_8O_5$), glycosides ($C_{18}H_{32}N_2O_{11}$), terpenoids ($C_{39}H_{50}O10$), and flavonoids ($C_{12}H_{12}N_2O_4$), which are known to play a role in antifungal mechanisms. The ethanol extract of hedgehog water spinach leaves has the potential as a natural antifungal agent against Candida albicans with an MIC at a concentration of 6.25%, supported by the diversity of secondary metabolites identified by LC-MS.

***Keywords**: Candida albicans, Ipomoea carnea Jacq., antifungal, LC-MS, secondary metabolites.*