FAKULTAS KEDOKTERAN

UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAKARTA

Skripsi, Januari 2025

RIFDAH SASIKIRANA, No. NRP 2010211018

UJI EFEKTIVITAS EKSTRAK ETANOL DAUN SIRIH HIJAU (*Piper betle* LINN.) DENGAN METODE UAE SEBAGAI ANTIFUNGI TERHADAP PERTUMBUHAN JAMUR *Trichophyton rubrum* SECARA *IN VITRO*

RINCIAN HALAMAN (xii + 50 halaman, 16 tabel, 3 gambar, 4 lampiran)

ABSTRAK

Kasus dermatofitosis di Indonesia saat ini cukup tinggi yaitu mencapai 52% yang sebagian besar disebabkan jamur *Trichophyton rubrum*. Obat antifungi yang beredar di masyarakat dapat menimbulkan efek samping dan resistensi, sehingga dibutuhkan pengobatan alternatif seperti ekstrak daun sirih hijau. Penelitian ini bertujuan mengetahui efektivitas ekstrak etanol daun sirih hijau sebagai anti-jamur terhadap *Trichophyton rubrum*. Penelitian ini dilakukan secara eksperimental dengan desain *post-test-only control group* menggunakan konsentrasi 10%, 20%, 30%, dan 40% yang berasal dari ekstrak daun sirih hijau, kontrol negatif DMSO dan kontrol positif ketokonazol 2%. Data penelitian ini diambil dengan mengukur zona hambat yang dilakukan pada inkubasi 24 jam dan 48 jam menggunakan metode cakram. Hasil zona hambat yang didapatkan berbeda-beda karena dipengaruhi oleh konsentrasi ekstrak dan waktu inkubasi. Senyawa aktif yang terkandung di dalam ekstrak etanol daun sirih hijau seperti alkaloid, flavonoid, tanin, triterpenoid, dan polifenol membuat ekstrak ini dapat menghambat pertumbuhan *Trichophyton rubrum*. Berdasarkan Davis dan Stout (1971), hasil penelitian pada inkubasi 24 jam dan 48 jam menunjukkan semua konsentrasi memiliki kekuatan lemah sebagai antifungi. Konsentrasi paling efektif adalah 30% pada inkubasi 24 jam dengan diameter zona hambat sebesar 3.97 mm.

Daftar Pustaka : 48 (2014-2024)

Kata kunci : Ekstrak daun sirih hijau; Metode cakram; *Tricophyton rubrum*; Zona hambat

FACULTY OF MEDICINE

UNIVERSITY PEMBANGUNAN NASIONAL "VETERAN" JAKARTA

Undergraduate Thesis, January 2025

RIFDAH SASIKIRANA, No. NRP 2010211018

TESTING THE EFFECTIVENESS OF GREEN BETLE LEAVES ETHANOL EXTRACT (*Piper betle* LINN.) WITH UAE METHOD AS AN ANTIFUNCTION AGAINST THE GROWTH OF THE FUNGUS *Trichophyton rubrum IN VITRO*

PAGE DETAIL (ix + 50 pages, 16 tables, 3 pictures, 4 appendices)

ABSTRACT

Cases of dermatophytosis in Indonesia are currently quite high, reaching 52%, which is mostly caused by the fungus Trichophyton rubrum. Distribution of antifungal drugs in the community can cause side effects and resistance, so alternative treatments such as green betel leaf extract are needed. This study aims to determine the effectiveness of green betel leaf ethanol extract as an anti-fungal against Trichophyton rubrum. This study was conducted experimentally with a post-test-only control group design using concentrations of 10%, 20%, 30%, and 40% derived from green betel leaf extract, DMSO as negative control and 2% ketoconazole as positive control. The data of this study was taken by measuring the inhibition zones carried out at 24-hour and 48-hour incubation using the disc method. The results of the inhibition zone obtained are different because they are influenced by the concentration of the extract and the incubation time. The active compounds contained in green betel leaf ethanol extract such as alkaloids, flavonoids, tannins, triterpenoids, and polyphenols make this extract can inhibit the growth of Trichophyton rubrum. Based on Davis and Stout (1971), the results of the study on 24-hour and 48-hour incubation showed that all concentrations had weak strength as antifungics. The most effective concentration is 30% at 24-hour incubation with an inhibition zone diameter of 3.97 mm.

Reference : 48 (2014-2024)

Keywords *: Disc method; Green betel leaf extract; Inhibition Zone; Tricophyton rubrum*