FAKULTAS KEDOKTERAN

UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAKARTA

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NELA AZALINA AZIZ, No. NRP 2110211083

PENGARUH BIJI ASAM JAWA (*Tamarindus indica Linn*.) TERHADAP PERTUMBUHAN *Malassezia furfur* SECARA *IN VITRO*

RINCIAN HALAMAN (xix+ 98 halaman, 15 tabel, 11 gambar, 4 lampiran)

ABSTRAK

Malassezia furfur penyebab penyakit *Pityriasis versicolor* dimungkinkan telah mengalami resistesi terhadap pengobatan azole sebagai lini pertama pengobatan penyakit ini. Solusi dari permasalahan tersebut yaitu dengan pengobatan alternatif antifungi dari bahan alami. Kandungan senyawa metabolit dalam biji asam jawa (*Tamarindus indica Linn*.) berpotensi menghasilkan aktivitas antifungi. Penelitian ini bertujuan untuk menguji pengaruh ekstrak biji asam jawa (*Tamarindus indica Linn.*) terhadap pertumbuhan *Malassezia furfur* secara *in vitro* dengan metode eksperimen dan desain *post test only control group.* Ekstrak etanol biji asam jawa konsentrasi 5%, 10%, 15%, dan 20% diuji bersama kontrol positif ketokonazole 2% dan kontrol negatif DMSO. Media *Saboraud Dextrose Agar* (SDA) digunakan untuk pembiakkan *M.furfur* dengan metode sumuran, dilanjutkan pengukuran zona bening saat inkubasi 24 jam dan 48 jam. Uji *Kruskall-Wallis* digunakan sebagai analisis data dengan hasil terdapat perbedaan penghambatan signifikan, dilanjutkan uji *Post Hoc Mann-Whitney*. Hasil pengukuran rata- rata zona hambat inkubasi 24 jam konsentrasi 5%, 10%, 15%, dan 20% sebesar 8.65 mm, 9.35 mm, 11.4 mm, dan 12.25 mm. Daya hambat kuat dihasilkan pada pemberian ekstrak konsentrasi 15% dan 20% saat inkubasi 24 jam. Konsentrasi ekstrak, jumlah senyawa metabolit sekunder, dan waktu inkubasi memengaruhi zona hambat yang dihasilkan. Konsentrasi paling efektif yaitu konsentrasi 15% saat inkubasi 24 jam dengan zona hambat sebesar 11.4 mm. Hal ini disebabkan karena kandungan senyawa metabolit sekunder diantaranya alkaloid, fenol, flavonoid, saponin, tannin, dan terpenoid dalam ekstrak biji asam jawa.

Daftar Pustaka **:** 96 (2015-2024)

Kata kunci **:** Aktivitas antifungi; ekstrak biji asam jawa; *Malassezia furfur*

FACULTY OF MEDICINE

UNIVERSITY PEMBANGUNAN NASIONAL "VETERAN" JAKARTA

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NELA AZALINA AZIZ, No. NRP 2110211083

EFFECT OF TAMARIND SEEDS EXTRACT (Tamarindus indica Linn.) ON THE GROWTH OF Malassezia furfur IN VITRO

PAGE DETAILS (xix + 98 pages, 15 tables, 11 pictures, 4 appendices)

ABSTRACT

Malassezia furfur, which causes Pityriasis versicolor, may have experienced resistance to azole treatment as the first line of treatment for this disease. The solution to this problem is with alternative antifungal treatments from natural ingredients. The content of metabolite compounds in tamarind seeds (Tamarindus indica Linn.) has the potential to produce antifungal activity. This study aims to test the effect of tamarind seed extract (Tamarindus indica Linn.) on the growth of Malassezia furfur in vitro with experimental method and post test only control group design. Ethanol extracts of tamarind seeds at concentrations of 5%, 10%, 15%, and 20% were tested along with positive control ketoconazole 2% and negative control DMSO. Saboraud Dextrose Agar (SDA) medium was used for culturing M. furfur with the pitting method, followed by measurement of the clear zone at 24 hours and 48 hours incubation. Kruskall-Wallis test was used as data analysis with the results of significant inhibition differences, followed by Mann-Whitney Post Hoc test. The average measurement results of the inhibition zone of 24-hour incubation of 5%, 10%, 15%, and 20% concentrations were 8.65 mm, 9.35 mm, 11.4 mm, and 12.25 mm. Strong inhibition was produced in the administration of extract concentrations of 15% and 20% during the 24-hour incubation. Extract concentration, the amount of secondary metabolite compounds, and incubation time affect the inhibition zone produced. The most effective concentration is 15% concentration during 24-hour incubation with an inhibition zone of 11.4 mm. This is due to the content of secondary metabolite compounds including alkaloids, phenols, flavonoids, saponins, tannins, and terpenoids in tamarind seed extract.

Reference **:** 96 (2015-2024)

Keyword **:** *Antifungal activity; Malassezia furfur; tamarind seed extract*