

ABSTRACT

Background: *Trichophyton rubrum* is a dermatophyte fungus and the primary cause of skin infections. Laboratory identification requires a medium capable of clearly revealing the morphology of the spores. *Corn Meal Agar* (CMA) can be modified by adding *Tween-80* to optimize fungal growth.

Objective: To determine the effectiveness of adding *Tween-80* to CMA medium on the growth of *Trichophyton rubrum* compared to the control PDA medium.

Methods: A laboratory experimental study using an intact-group comparison design. *Trichophyton rubrum* was cultured on PDA, CMA, and CMA + *Tween-80* media, then incubated for 14 days. The parameters observed included colony diameter and spore morphology. The data were analyzed using ANOVA and Tamhane's T2 tests.

Results: Colony diameters on PDA medium were significantly larger than those on CMA and CMA + *Tween-80* ($p < 0.05$). However, there was no significant difference between CMA and CMA + *Tween-80*. Microconidia growth on both CMA media remained effective for identification.

Conclusion: The addition of *Tween-80* to CMA medium did not result in a significant difference in the growth of *Trichophyton rubrum* colonies. CMA, with or without *Tween-80*, remains effective for observing spore morphology; however, it cannot yet replace PDA as a growth medium because the resulting colony diameters are still smaller than those on PDA.

Keywords: *Trichophyton rubrum*, *Corn Meal Agar* (CMA), *Tween-80*

ABSTRAK

Latar Belakang: *Trichophyton rubrum* merupakan jamur dermatofit penyebab utama infeksi kulit. Identifikasi laboratorium memerlukan media yang mampu menampilkan morfologi spora dengan jelas. Media *Corn Meal Agar* (CMA) dapat dimodifikasi dengan penambahan *Tween-80* untuk mengoptimalkan pertumbuhan jamur..

Tujuan: Mengetahui efektivitas penambahan *Tween-80* pada media CMA terhadap pertumbuhan *Trichophyton rubrum* dibandingkan media kontrol PDA..

Metode: Penelitian eksperimen laboratorium dengan desain *Intact-Group Comparison*. *Trichophyton rubrum* ditanam pada media PDA, CMA, dan CMA + *Tween-80*, kemudian diinkubasi selama 14 hari. Parameter yang diamati meliputi diameter koloni dan morfologi spora. Data dianalisis menggunakan uji ANOVA dan Tamhane's T2.

Hasil: Diameter koloni pada media PDA lebih besar secara signifikan dibandingkan CMA dan CMA + *Tween-80* ($p < 0,05$). Namun, tidak terdapat perbedaan signifikan antara CMA dan CMA + *Tween-80*. Pertumbuhan mikrokonidia pada kedua media CMA tetap efektif untuk identifikasi.

Kesimpulan: Penambahan *Tween-80* pada media CMA tidak memberikan perbedaan signifikan terhadap pertumbuhan koloni *Trichophyton rubrum*. CMA dengan maupun tanpa *Tween-80* tetap efektif untuk pengamatan morfologi spora, tetapi belum dapat menggantikan PDA sebagai media pertumbuhan karena diameter koloni yang dihasilkan masih lebih rendah dibandingkan PDA.

Kata Kunci: *Trichophyton rubrum*, *Corn Meal Agar* (CMA), *Tween-80*