

Plate Medium Findings of *Trichophyton mentagrophytes*

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Trichophyton mentagrophytes is a zoophilic or anthropophilic dermatophyte, known as second most frequent causative agent of dermatophytosis after *T. rubrum*^{1,2}. *T. mentagrophytes* are classified into granular type, powdery type, persicolor type, and downy type³.

Plate medium and slant medium employed in fungal culture have various advantages and disadvantages clinically. The plate medium is filled with agar and other substrates, and the shape, color, and morphology of the colony can be detected easily compared to the slant medium, making it more appropriate for species identification. However, the drawback is a larger surface area than slant medium, so it is challenging to store for a long time due to faster evaporation, and a higher risk of contamination.

Fungal culture can be conducted in Sabouraud's dextrose agar, and yellowish-brown to reddish-brown reverse staining found on the plate medium is a characteristic finding of *T. mentagrophytes* (Fig. 1A). Furthermore, other plate medium results of *T. mentagrophytes* include: white to bright yellow or pink on the front (Fig. 1B) and red-brown to gray-yellow color on the reverse side. Periphery morphology is fine saw teeth shape.

Characteristic findings of *T. mentagrophytes* on plate medium are flat, white to cream, powdery to the granular colony on the frontal side, and reverse pigmentation which is yellow-brown to reddish-brown color on the reverse side. In particular, plate medium has more advantages for identifying *T. mentagrophytes* colony because the pattern on the back side cannot be found in slant medium. Therefore, plate media is better than slant medium when the clinician needs to identify and purify the colony.



Fig. 1. (A) Colonies of *T. mentagrophytes* on plate medium, reverse side (Petri dish filled with Sabouraud's dextrose agar). This picture shows reverse side of plate medium, in which the yellow-brown to reddish-brown color of *T. mentagrophytes*. (B) The front side of the plate medium. This picture reveals a whitish powdery type colony of *T. mentagrophytes* on plate medium at 25°C for 2 weeks.

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CONFLICT OF INTEREST

In relation to this article, we declare that there is no conflict of interest.

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