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Two feet-one hand syndrome caused by *Trichophyton mentagrophytes*

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A 45-year-old male farmer presented with complaints of itchy lesions on both feet and his left hand for 6 months and 1 month, respectively. The lesions first appeared on his feet and later spread to his hand. Itching was present on both feet, and he often used his left hand to scratch them. Physical examination revealed ill-defined, dry, scaly plaques on the plantar aspect of both feet and the palmar aspect of the left hand [Figure 1], without involvement of finger or toenails. Skin scrapings were obtained by scraping the edge of the lesions on both feet and the left hand with differentials of dermatophytosis and dermatitis. Mycological examination with a 10% potassium hydroxide (KOH) mount of scales revealed thin septate hyphae on direct microscopy from all sites. The culture was performed on Sabouraud dextrose agar (SDA) with 0.05 mg/mL chloramphenicol and 0.5 mg/mL cycloheximide and incubated at 28°C in a Biochemical Oxygen Demand incubator. The culture was examined thrice weekly for the appearance of growth. Fungal growth was observed at 3 weeks and was identified by colony morphology followed by microscopic examination using the tease mount technique in a lactophenol cotton blue (LPCB) mount. The LPCB mount showed microconidia, macroconidia, and spiral hyphae [Figure 2]. The culture on SDA was subjected to DNA extraction using a commercially



Figure 1: Ill-defined, dry, scaly plaques on the plantar aspect of both feet and the palmar aspect of the left hand.

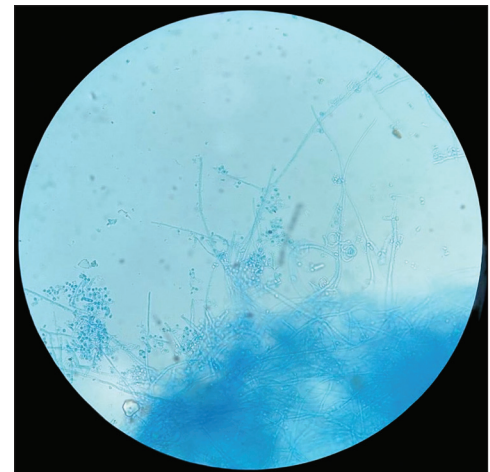


Figure 2: Lactophenol cotton blue tease mount showing microconidia, macroconidia, and spiral hyphae (×100).

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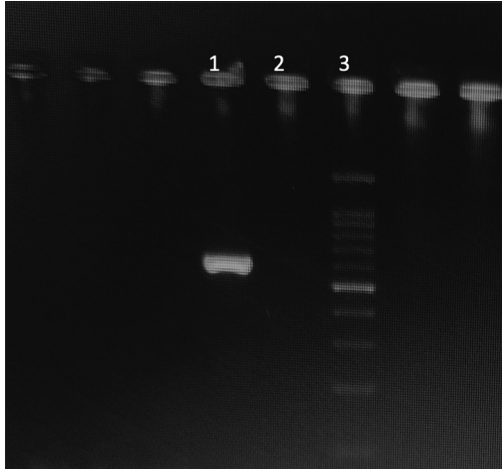


Figure 3: Gel picture showing amplicon of the *Trichophyton mentagrophytes* using Internal Transcribed Spacer (ITS) 1 and ITS 4 primers (Lane 1: Positive for *T. mentagrophytes* at 600 bp (approximately); Lane 2: Negative control; Lane 3: 100bp DNA ladder).

available DNA extraction kit (HiYield Genomic DNA Kit; Real Biotech Corporation, Taiwan). Genomic DNA was subjected to conventional polymerase chain reaction using pan-fungal primers: Internal Transcribed Spacer (ITS)-1 (5'-TCCGTAGGTGAACCTGCGG-3') and ITS-4 (3'-TCCTCCGCTTATTGATATGC-5') region of 18s ribosomal RNA [Figure 3]. The sequences were analyzed and compared with the sequences deposited in GenBank using BLAST (<http://www.ncbi.nlm.nih.gov/BLAST/Blast.cgi>). The ITS sequences showed $\geq 99\%$ similarity with the *Trichophyton mentagrophytes* complex. A diagnosis of two feet-one hand syndrome with hyperkeratotic or moccasin-

type tinea pedis without any nail involvement was made. The patient was treated with terbinafine 250 mg once daily, miconazole nitrate 2% cream for local application twice daily, and oral antihistamines for 6 weeks. On follow-up, the patient showed a complete cure, and a repeat KOH examination was negative for any fungal elements.

Ethical approval

The Institutional Review Board approval is not required.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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