First-ever highly contagious**, drug-resistant ringworm (*Trichophyton indotineae*) infections found in US**

Two **highly contagious and drug-resistant ringworm infection (tinea)** cases were reported in New York City, USA (Dec 2021–March 2023), caused by ***Trichophyton indotineae,*** (The Economic Time, May 21, 2023). These patients shared no epidemiologic links. Skin culture isolates from each patient was previously identified by a clinical laboratory as *Trichophyton mentagrophytes*. Sanger sequencing of the internal transcribed spacer region of the ribosomal gene, followed by phylogenetic analysis performed during March 2023, identified the isolates as *T. indotineae*

Patient A, a woman aged 28 years, developed a widespread pruritic eruption in summer of 2021. She had a first dermatologic evaluation in December 2021 and was 3 months pregnant at the time. She began oral terbinafine therapy in January 2022 after giving birth. Her eruptions did not improve after 2 weeks of therapy, terbinafine was discontinued, and she began itraconazole treatment. The rash resolved completely after completing a 4-week course of itraconazole.

Patient B, a woman aged 47 years with no major medical conditions, developed a widespread, pruritic eruption in the summer of 2022 while in Bangladesh. There, she received treatment with topical antifungal and steroid combination creams and noted that several family members were experiencing similar eruptions. After returning to the US, was prescribed hydrocortisone 2.5% ointment and diphenhydramine (visit 1), clotrimazole cream (visit 2), and terbinafine cream (visit 3) with no improvement. In December 2022, widespread, discrete, scaly, annular, pruritic plaques affected were observed. Her symptoms did not improve after a 4-week course of oral terbinafine. A 4-week course of griseofulvin therapy, resulted in 80% improvement. Itraconazole therapy is being considered Her son and husband, have reported of similar eruptions, currently undergoing evaluation.

T. indotineae is a dermatophyte mold, and its infections are highly transmissible and characterized by widespread, inflamed, pruritic plaques on the body (tinea corporis), the crural fold, pubic region, and adjacent thigh (tinea cruris), or the face (tinea faciei). *T. indotineae* infection in woman who had no recent international travel history is alarming, indicating it could be a "potential local U.S. transmission." (CDC MMWR, 2023)

These cases highlight several important points. Clinicians should consider T. indotineae infection in patients with widespread tinea, particularly when eruptions do not improve with first-line topical antifungal agents or oral terbinafine. Culture-based identification techniques typically misidentify *T. indotineae* as *T. mentographytes* or *T. interdigitale*; genomic sequencing is essential. Antimicrobial stewardship efforts are essential to minimize the misuse and overuse of prescribed and over-the-counter antifungal drugs and corticosteroids.

Caplan AS, Chaturvedi S, Zhu Y, et al. Notes from the Field: First Reported U.S. Cases of Tinea Caused by Trichophyton indotineae — New York City, December 2021–March 2023. MMWR Morb Mortal Wkly Rep 2023;72:536–537.

Figure: These are the first known cases of drug-resistant ringworm