

Trichophyton Mentagrophytis as Predominant Species Causing Dermatophytic Infections in Molecular Epidemiology Study of West Azarbayjan Area

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Background & Objectives: Dermatophytosis is the infection of skin, hair or nail that is caused by various keratinophilic fungi (dermatophytes). Dermatophytosis is caused by fungi in the genera *Microsporum*, *Trichophyton* and *Epidermophyton*. *Trichophyton mentagrophytis* is a most important keratinophilic fungus that causes all types of Tinea in human. A molecular assay was performed in West Azarbayjan province for the study of epidemiologic variations in causing agents of dermatophytosis.

Methods: A total of 246 specimens were collected from clinically suspected Tinea Corporis, Tinea Cruris, Tinea Capitis, Tinea Pedis, Tinea Manuum and Tinea Unguium. Patients were referred to medical mycology lab for direct examination and fungal cultures. Total cellular DNA was extracted from isolates using glass beads-phenol chloroform and then amplified with PCR and digested with a single restriction enzyme.

Results: Among 246 clinical samples molecularly examined, 28 were positive for dermatophyte isolates which included five dermatophyte species: *Trichophyton mentagrophytis* (34.7%), *Trichophyton rubrum* (4.3%), *Microsporum canis* (30.4%), *Microsporum gypseum* (17.3%), *Epidermophyton floccosum* (13.04%) were finally identified.

Conclusion: Considering our data of isolated dermatophytes, we found *T. mentagrophytis* was the predominant dermatophytic species in the West Azarbayjan area.

Keywords: *Trichophyton mentagrophytis*; Dermatophytic Infections; West Azarbayjan