

Dermatophytoses: Spectrum Evolution of Dermatophytes in Sfax, Tunisia, Between 1999 and 2019

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Abstract : Dermatophytoses are considered a public health problem and represent 10% of dermatological consultations in our region. Their epidemiology is influenced by various factors, such as lifestyle, human migration patterns, changes in the environment and the host relationship. The understanding of epidemiology has a major impact on their prevention and treatment. The aim of the study is to determine the prevalence pattern of aetiological agents and to describe the clinical characteristics of dermatophytoses between 1999 and 2019. Out of 65 059 subjects suspected to have superficial mycoses, 36 220 (55.67%) were affected with dermatophytoses. The mean age was 40.1 years (range: 10 days to 99 years). The sex ratio was 0.8. Our patients were from urban regions in 80.9% of cases. The most common type of infection was onychomycosis (42.64%), followed by tinea pedis (20.8%), intertrigo (18.3%), tinea corporis (8.48%) and tinea capitis (7.87%). The most isolated dermatophyte was *Trichophyton rubrum* (76.5%), followed by *T. mentagrophytes* complex (6.3%), *Microsporum canis* (5.8%), *T. violaceum* (5.3%), *T. verrucosum* (0.83%) and *Epidermophyton floccosum* (0.3%). Zoophilic agents have become more prevalent and their frequency has been increased from 6.46% in 1999 to 13% in 2019. It is interesting to note that *M. canis* has been on the rise since 2010 and it was the first etiological agent of tinea capitis (48%), while infections caused by *T. violaceum* continued to decrease from 1999 (16.2%) to 2019 (4.7%). Other dermatophytes have been rarely isolated: *T. tonsurans* (9 cases), *T. schoenleinii* (3 cases), *T. soudanense* (2 cases), *M. fulvum* (1 case), *M. audouinii* (1 case) and *M. ferrugineum* (2 cases). *T. mentagrophytes* var. *quinckeanum* was isolated from an inflammatory tinea capitis lesion in an a-3-year-old girl. *T. mentagrophytes* var. *erinacei* was isolated from the first case of tinea manuum, in a-10-year-old girl. The same fungus was isolated from the hair and scales of the hedgehog. Our study showed significant changes in the dermatophytes spectrum in our region. The prevalence of zoophilic species increased in recent years due to people's behavioral changes with the adoption of pets and animal husbandry in urban settings. Molecular methods are often crucial that help us to refine the identification strains of dermatophytes and to identify their origin of the contamination.

Keywords : dermatophytoses, PCR-sequencing, spectrum, Sfax, Tunisia

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