



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

INFANTILE ONYCHOMYCOSIS: EPIDEMIOLOGICAL AND MYCOLOGICAL PROFILE

Sonia Boudaya⁽¹⁾ - Sana Miladi⁽²⁾ - Rim Chaabouni⁽²⁾ - Emna Bahloul⁽¹⁾ - Sourour Neji⁽³⁾ - Houaida Trabelsi⁽⁴⁾ - Fattouma Makni⁽⁴⁾ - Ali Ayadi⁽⁴⁾ - Hamida Turki⁽¹⁾

Hedi Chaker Hospital, Department Of Dermatology, Sfax, Tunisia⁽¹⁾ - Hedi Chaker Hospital, Departement Of Dermatology, Sfax, Tunisia⁽²⁾ - Habib Bourguiba Hospital, Departement Of Parasitology, Sfax, Tunisia⁽³⁾ - Habib Bourguiba Hospital, Department Of Parasitology, Sfax, Tunisia⁽⁴⁾

Introduction: Onychomycosis is rare in children. However, their incidence has sharply increased in recent years.

Objective: Evaluate the epidemiological and mycological profile of childhood onychomycosis.

Materials and methods: Retrospective study including all cases of onychomycosis of the child (age <18 years) over a period of 15 years (2003-2017).

Results: We collected 15532 onychomycosis patients during this period, including 459 children.

The average age was 12.5 years of which 36 were infants (7.8%). A female predominance (sex ratio = 0.58) was noted. The preferred location was toenails (54%).

Dermatophytic onychia (63%) affected children aged 14 to 18 years in 71.7% and infants in 5%. They were located at the toenails in 86.3%, associated with interdigitated plantar involvement in a quarter of cases. Fingernails were affected in 13.7% of cases, associated with tinea in 17.4% of cases. *Trichophyton rubrum* was the majority species (86.7%), followed by *Trichophyton violaceum* (2.4%) and *Trichophyton interdigitalae* (2%).

Candidotic onychia (36.1%) predominated in the finger nails (95%) in the 14 to 18 age group in 50% and the infant in 13.8% of the cases. A family history of candidal onychomycosis was found in 15% of cases. The isolated species were *Candida albicans* (30%), *Candida parapsilosis* (6, 7%) and *Candida tropicalis* (3.6%).

Molds were responsible for 4 cases of onychia (0.9%): 2 cases of *Penicillium* sp and 2 cases of *Aspergillus* sp.

Conclusion: Onychomycosis is rare in children (0.44% to 0.6% in the West). In our series, we found a higher frequency estimated at 3%. Infantile involvement is even rarer (<0.3% in





the literature), which is compatible with our results (0.23%). Mycologically, our results are consistent with the literature: predominance of dermatophytic onychia predominantly *Trichophyton rubrum*, *Candida albicans* is the most common pathogen in the nails of the hands.

