

AGENTS OF TINEA PEDIS AND THEIR DISTRIBUTION ACCORDING TO AGE GROUPS IN THE AEGEAN REGION OF TURKEY, 2000-2014



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Aim: Tinea pedis is the term used for a dermatophyte infection of the soles of the feet and the interdigital spaces. Tinea pedis continues to be considered a public health problem. This retrospective study was carried out with the aim of determining the agents of Tinea pedis and their distribution according to age groups in the Aegean Region of Turkey, 2000-2014, using the data obtained from the Mycology Laboratory, Faculty of Medicine, Ege University.

Methods: The feet and the interdigital skin scrapings specimens of 3583 patients (1798 male and 1785 female) who were suspected to have tinea pedis were thoroughly examined in all areas for the evidence of crusting, inflammation, erythema. The feet and the interdigital skin scrapings were collected and the specimens were placed in sterile petri dishes. The 20% KOH preparations of the specimens were examined under light microscope. The presence of fungal hyphae and spores was accepted as positive microscopy. The remaining of scrapings were then seeded on three separate slant tubes of Sabouraud's dextrose agar containing chloramphenicol, one with and the other without cycloheximide, and potato dextrose agar. The agar slants were incubated at a temperature of 26° C for four weeks and checked twice weekly. Isolated dermatophytes were identified based on growth rate, microscopic morphology of slide cultures, and production and potential diffusion of pigment on potato dextrose agar.

Results: In 1029 patients' cultures yielded dermatophytes. Culture positivity was highest in the 46-60 age groups both female and male.

The most frequent agent of Tinea pedis was *Trichophyton rubrum* (900: 87.5 %) followed by *T. mentagrophytes* (109: 10.6 %), *T. tonsurans* (14: 0.1 %), *Microsporum canis* (2) *E. floccosum* (4) and *Trichophyton violaceum* (1). *Trichophyton rubrum* infection was found in 88.1 % of male and in 86.8 % of female patients with Tinea pedis.

Conclusion: It was concluded that in the last 14 years the most frequent agent of Tinea pedis was *T. rubrum* with a predominance in adults. The diagnosis and proper treatment of dermatophyte infection is important. Therefore, a highly effective interdisciplinary cooperation among general practitioners, mycologists and dermatologists is strongly recommended.