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ONYCHOMYCOSES OF LOW EXTREMITIES IN PATIENTS WITH DIFFERENT DERMATOSES

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Our study involved 305 patients with skin diseases hospitalized in the Department of Dermatology and Venereology, Medical University of Varna, for a 6-month period (April-September, 1998). In 40 (13,1 %) of them onychomycoses of toe nails (1-10) nails as an attendant disease were established. The group included patients aged 45 to 73 years; 22 males and 18 females. Diagnosis of dermatophyte nail invasion was proved by the isolation and identification of the fungi from the affected nails. Onychomycoses accompanied several skin diseases such as erysipelas - 9, psoriasis vulgaris - 8, chronic venous insufficiency of lower extremities - 5, skin diseases with autoimmune genesis and prolonged immunosupressive therapy – 5, and other - 13. That gavs reason to consider onychomycoses as predisposition factors in some dermatoses but in patients with decreased immune defense as predisposition factors for the appearance of the disease.

Key-words: Onychomycoses, skin diseases, incidence, diagnosis, immunity

Onychomycoses are a great part of the pathology of skin and nails. According to different authors, they are 2,6-5 % of the onychopathies of the skin (1,2). Fungal agents that cause them are dermatophytes, yeasts and moulds. Many factors of endogenic origin take place in their etiology (3,4). On one hand, the presence of the pre-existing onychomycoses of the lower extremities may induce some skin diseases and permanent therapy with corticosteroids favours their development (3,6,7).

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The purpose of this study is to analyze the clinical and etiological diagnosis of onychomycoses and their role as primary and secondary disease in some dermatoses.

MATERIAL AND METHODS

The study involved 305 patients with skin disease hospitalized in the Department of Dermatology and Venereology, Medical University of Varna, for a 6-month period (April- September, 1998). Special attention was paid to the toe nails in these patients. The isolation and identification of the fungi from the affected nails established the diagnosis of dermatophyte

nail invasion. Bacterioscopic and cultural methods were used.

RESULTS AND DISCUSSION

Onychomycosis of toe nails as a secondary disease was clinically established in 40 patients (13,1 %). In all cases clinical diagnosis was confirmed bacterioscopically (Table 1).

Out of 53 patients with Erysipelas, onychomycosis of toe nails was established in 9 (16,9 %). In these cases onychomycosis favours the infection. That substantiates the antimycotic therapy of the nails along with the systemic and permanent prophylactics of the recurrences.

In 8 (29,6 %) out of 27 patients with psoriasis vulgaris onychomycosis of toe finger was proved. In 6 of them *Candida spp.* were both bacterioscopically and by means of culture isolated. It is known that nails of patients with psoriasis are frequently affected and show respective clinical changes. The question of onychomycosis in these patients is arguable. The clinical appearance of the psoriatic onychodystrophy resembles the changes in onychomycosis.

Table 1

Onychomycosis distribution with other skin diseases

Skin disease	Patients (n)	with onychomycosis of toe nails (n-%)
Erysipelas	53	9 (16,9 %)
Psoriasis vulgaris	27	8 (29,6 %)
Chronic venous insufficiency	15	5 (33,3 %)
Dermatosis with autoimmune genesis	15	5 (33,3 %)
Other	195	13 (6,6 %)
Total	305	40 (13,1 %)

Probably, the accelerated epidermal cycle in the patients with psoriasis vulgaris contributes to the mechanical removal of the mycotic agents invading the nails.

Out of 15 patients with chronic venous insufficiency of the lower extremities, in 5 there was an onychomycosis, too. Probably, the circulatory disturbances of venous, arterial, and lymph origin delayed the growth of the nails and predisposed the mycotic invasion.

Out of 15 patients with autoimmune skin disease onychomycosis of toe nails was established in 5. This high proportion may be explained with the immune insufficiency in this group. On the one hand, this was due to the pathogenic features of these diseases.

On the other hand, prolonged corticosteroid and cytostatic therapy play a certain role, too. This posed the problem of adequate prophylactic of the patients with such diseases. Elimination of the focus of onychomycotic infection in the patients with autoimmune skin diseases favours the course of the illness.

As a summary, the onychomycosis in patients with skin diseases may be of primary or secondary character. The problem is interesting in theoretical and practical aspects and should be studied in details in future.

CONCLUSION

1. In 40 (13,1 %) of 305 patients onychomycoses of the toe nails are diagnosed.

2. Onychomycosis of the toe nails may be classified as primary (co-factor) in patients with *Erysipelas recidivans* (in 16,9 % of the cases).

3. Onychomycoses are secondary to patients with chronic venous insufficiency of the legs and autoimmune skin diseases with prolonged corticosteroids and cytostatic therapy - in 5 cases each.

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Онихомикози на долните крайници при болни от кожни заболявания

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Резюме: Проследени са 305 болни от кожни заболявания, преминали през Катедрата по кожни и венерически болести на Медицинския университет-Варна през период от 6 месеца (април-септември 1998 г.). При 40 от тях (13,1 %) са установени онихомикози на ноктите на краката (1-10 нокти) като придружаващи заболявания. Болните са на възраст от 45 до 73 г. Мъжете са 22, а жените - 18. При всички болни с онихомикози клиничната диагноза е потвърдена и бактериоскопично. Онихомикозите придружават следните кожни заболявания: еризипел - 9; псориазис вулгарис - 8, хронична венозна инсуфициенция на долните крайници - 5, кожни заболявания с автоимунна патогенеза и смутена имунна защита вследствие на продължително лечение с имуносупресивнии

препарати - 5, а други - 13. Получените данни дават основание да се считат онихомикозите като предиспозиращи фактори за възникване на някои дерматози, а при тези със смутена имунна защита - като предразполагащи фактори за възникването им.