

NAIL DISORDERS

## ONYCHOMYCOSIS IN 4 SUBTYPES OF PSORIASIS WITH NAIL INVOLVEMENT: A CROSS-SECTIONAL STUDY

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**Introduction:** The interplay between nail psoriasis and onychomycosis was still under debate. A majority of studies focused on the comparison between psoriasis patients and healthy controls, nevertheless, the features in different psoriasis subtypes are still unclear.

**Objective:** We investigated the prevalence and features of nail involvement and the onychomycosis incidence in 4 subtypes in inpatient psoriatic cases.

**Materials and Methods:** A cross-sectional analysis was performed in 431 in-patient psoriatic cases. Patients were classified as plaque psoriasis(PsO), pustular psoriasis(PsP), psoriatic arthritis(PsA) and erythrodermic psoriasis(PsE). The Psoriasis Area and Severity Index(PASI) and the Nail Psoriasis Severity Index (NAPSI) were employed to assess the severity of the skin and nails respectively. The diagnoses of onychomycosis were made based on the findings of fungal direct microscopic examination and culture[?]

**Results:** The incidence of nail involvement in total psoriasis patients was 46.17%. Patients with PsE showed the highest nail psoriasis prevalence with 64.71%, followed by PsA (58.11%), PsP(47.17%)and PsO(41.81%). The increasing onset age of psoriasis, duration of disease and PASI score were significantly related to nail involvement. The overall prevalence of onychomycosis in psoriatic nails was 24.12%. PsA had the highest fungi infection rate. Binomial logistic regression indicated that increasing onset age of psoriasis was the only predictor (OR 1.037;95% CI 1.010-1.062) of onychomycosis in nail psoriasis patients among all the factors studied, including gender, disease duration, PASI, NAPSI, and subtype. Moreover, we identified the predominant fungi strain was *Trichophyton rubrum*.

**Conclusion:** psoriatic nail plays a predisposing role in onychomycosis; the prevalence of both nail psoriasis and onychomycosis in different psoriasis subtypes are uneven.