

The aim of the present study was to investigate the prevalence and severity of RLS in patients with psoriasis.

**Materials and Methods:** A total of 44 consecutive psoriasis patients (21 male and 23 female; aged, 46.43 ± 14.62 years) who visited Psoriasis Unit of Department of Dermatology and Venereology, Akdeniz University Hospital were involved in the study. The demographic and clinical data were recorded. A diagnosis of RLS was made according to the criteria of the International RLS Study Group (IRLSSG), and severity was assessed using the IRLSSG severity scale. We measured serum iron, ferritin and red cell count, haemoglobin, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), 25-hydroxyvitamin D(3) (25-OH-D(3)), Vitamin B-12 in patients with RLS.

**Results:** RLS was obtained in 7 (15.9%) patients. IRLSSG severity scale were moderate in 4 patients (57.1%) and severe in three patients (42.9%). 3 (42.9%) patients had iron deficiency anemia, 5 (71.4%) patients had low 25-OH-D(3) and 1 (14.2%) patient had low vitamin B-12 levels among patients with RLS. Two of them had both iron deficiency anemia and low 25-OH-D(3).

**Conclusion:** RLS is common in patients with psoriasis. In our study group, RLS seems to be associated with iron deficiency anemia, low 25-OH-D(3) and B-12 levels.

**Disclosure of Interest:** None declared.

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### IL-6 and TNF-alpha polymorphisms in portuguese psoriatic patients

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**Introduction:** Cytokines regulate the growth, function and differentiation of cells and help to steer immune response and inflammation. In this study we focused our attention in two proinflammatory cytokines: IL-6 and TNF- $\alpha$ . It is known that their overexpression is responsible for initiation, maintenance and recurrence of skin lesions in psoriatic patients. Therefore, it is important to investigate genetic biomarkers with functional effects in the genes of those cytokines that could help to predict the severity of Psoriasis.

**Objectives:** To investigate the hypothesis that allelic variants in IL-6 and TNF- $\alpha$  genes are a risk factor for the developing of severe Psoriasis.

**Materials and Methods:** A cohort of 178 (74 females, 104 males) psoriatic patients with severe plaque type psoriasis [according to the Psoriasis Area and Severity Index (PASI)] and 206 healthy individuals were selected. Several polymorphisms in the IL-6 gene (rs1800795, rs1800796, rs2069827, rs2069840) and TNF- $\alpha$  (rs361525, rs1799964, rs1800629) promoter region were genotyped. SNP genotyping was performed using Mass Spectrometry (MassARRAY iPLEX-Sequenom).

**Results:** We observed a lower frequency in the minor allele (C) of the TNF- $\alpha$  rs1799964 SNP in psoriatic patients, compared with controls [(21.9% vs. 29.4%),  $p = 0.02$ , OR = 0.675 (0.49–0.94)]. The frequency of the CC genotype in patients was 3.93% while in the healthy control group it was 9.22% [ $p = 0.04$ , OR = 0.403 (0.17–0.98)]. No statistical significant differences were found in the other polymorphisms.

**Conclusion:** Our data suggest that the rs1799964 C allele could be a protective factor for developing severe psoriasis. These results were similar to the findings of Gallo et al (2012) in a Spanish population. The mechanism to explain this association remains elusive, given the lack of evidence of a functional association.

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### Peculiarities of the psoriatic onychodystrophy

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**Introduction:** The psoriatic onychodystrophy may occur before the appearance of psoriatic eruptions, usually as a symmetrical process with the attack of several nail plates, and thus be the only symptom of psoriasis.

**Objectives:** In order to research the character of clinical, immunopathological processes of the psoriasis with onychodystrophy and effect topical therapy.

**Materials and Methods:** Among the examined patients there were 202 men and 51 women. All the patients had the skin coverings examined according to the Psoriasis Area and Severity Index (PASI) and the dermatological index of the quality of life (DIQL). All the patients with onychodystrophy had the microscopical and cultural examination of the mycoses.

In the samples of the peripheral blood it was defined the total quantity of the leucocytes; the relative number of lymphocytes and neutrophil granulocytes; the subpopulations of the lymphocytes possessing the antigens CD3, CD4, CD8, CD20 ("Becton Dickinson", USA); the activity of phagocytosis; NBT – test; the content of immunoglobulins of M, G and A classes, the content of the circulatory immune complexes (CIC). The immune regulatory index was evaluated according to the correlation CD4/CD8. Data analysis concerning normal distribution was realized according to Tuki, d'Agostin-Pirson criterion, correlation analysis was performed by Pearson.

**Results:** 44.7% patients had the concomitant psoriatic attack of the nail plates. The average age, the disease duration and the PASI value were higher ( $p = 0.001$ ) with the patients with the concomitant onychodystrophy than with the patients not having the nail plates attacked. The level of the DIQL with the examined patients was on average  $20.1 \pm 0.29$  points and strong direct correlation between the DIQL and PASI values was  $r = 0.90$ ;  $p = 0.001$ . In the structure of the nails attack the prevalent cases were the psoriatic onychias the "thimble" symptom (65.5%); the "oil stain" symptom (49.6%); onychogriphosis (10.6%); onycholysis (6.2%).

The concomitant mycosis attack of the feet nail plates was found with 11.5% patients.

The patients deformations in all principal links of the immune protection: the disbalance of the adaptive cellular immunity with the increase of CD3 + -lymphocytes quantity and the evident removal of the immune-regulatory index in the direction of the cells with helping function, the secondary granulocytopeny with the increase of the absorbing and killing activity of neutrophils, the hyperactive humoral immune response with high level of CIC and hyperimmunoglobulinemia M and A.

**Conclusion:** The probability of the psoriatic onychodystrophy development was growing with the increase of the patients' age, the disease duration, the severity of the skin process. The found immunological peculiarities can be explained by the more severe psoriasis development with patients with the concomitant onychodystrophy.

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### Knowledge about psoriasis among nurses in non-dermatological healthcare institutions

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**Introduction:** Nurses working in dermatological clinics frequently play leading roles in the care of patients with dermatological disorders. However,