5. Streszczenie w języku angielskim

Psoriasis is a common, inflammatory, autoimmune skin disease affecting about 2-4% of worldwide population. Symptoms accompanying psoriasis may not only significantly decrease quality of life but also sleep. The common pathogenic paths between psoriasis and particular sleep disorders (SD) – obstructive sleep apnea syndrome (OSAS) and restless legs syndrome (RLS) – may indicate their mutual associations. SD are also tightly related to psychosocial aspects, which may be negatively affected by psoriasis. The SD issue has been already investigated but the outcomes have been inconsistent and ambiguous. Little is known about independent predictors of SD in patients with psoriasis. Therefore, it is reasonable to increase the knowledge about various psychosocial aspects and SD in patients with psoriasis in order to improve the physical and psychological condition of patients and to reduce the risk of comorbidity and, consequently, premature death.

The main aim of the study was to assess the prevalence and risk of SD among 60 patients with flare of plaque psoriasis: sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI), OSAS risk using the STOP BANG (Snoring, Tired, Observed, Pressure, BMI, age>50 years, Neck size, Gender-male), and RLS using the International RLS Study Group criteria and RLS severity scale. Psychosocial aspects were assessed using the Dermatology Life Quality Index (DLQI), WHO Quality of Life questionnaire, International Physical Activity Questionnaire and stress severity tool designed by authors, and data were related to SD indicators. Statistical analysis of the obtained results was performed and related with demographic and clinical data, then compared to a control group of 40 age- and sex-matched volunteers without skin diseases.

The analysis revealed worse sleep quality in patients with psoriasis ($p<0.0001$), higher risk of developing OSAS ($p<0.05$) and higher severity of RLS symptoms ($p<0.01$) compared to subjects without skin diseases. Furthermore, these factors are not dependent on psoriasis activity and severity index (PASI). Patients with psoriasis sleep significantly less hours ($p<0.0001$), are more likely to take sleep medications and have less energy to perform daily activities (both $p<0.01$). Total cholesterol, fasting glucose and CRP concentrations are variables independently associated with the onset of RLS symptoms ($p<0.05$). Patients treated systemically had significantly poorer sleep quality, but without significant effects of specific medications. Psoriatic patients have significantly lower quality of life in social and environmental domains ($p<0.05$), poorer appearance acceptance and quality of sex life ($p<0.01$), and their mean DLQI score is 10.5, reflecting a moderate to severe reduction in

quality of life. Such patients are less able to take physical activity than the general population ($p<0.01$). PSQI is positively correlated with DLQI ($R=0.413$, $p<0.001$) and severity of stress ($R=0.394$, $p<0.01$).

Conclusions:

1. It has been demonstrated that patients with psoriasis have significantly worse sleep quality, more frequently take sleeping medicines and have more severe energy impairment to perform daily activities.
2. Patients with psoriasis have significantly higher risk of OSAS, which increases with duration of disease, age and BMI.
3. The severity of RLS is significantly higher in patients with psoriasis than in those without skin diseases, which may indicate negative impact of psoriasis on the course of RLS.
4. PASI and DLQI should not serve as predictors of sleep disorders in psoriatic patients.
5. Total cholesterol, CRP and glucose concentrations may be potential, but not specific, predictors of RLS in patients with psoriasis.
6. The choice of particular drug in the classical systemic therapy of psoriasis does not appear to significantly influence sleep quality and severity of RLS symptoms.
7. It has been shown that patients with psoriasis have significantly worse acceptance of physical appearance and satisfaction with their health and sex life, which significantly increases stress and sleep disorders.
8. People with psoriasis take insufficient physical activity compared to those without skin diseases, which increases the risk of cardiometabolic complications and OSAS.
9. There is a vicious circle between sleep and psychosocial disturbances and exacerbation of psoriatic lesions: sleep disorders reduce quality of life and increase stress, which in turn aggravates sleep disturbances.
10. Sleep disorders are key comorbidities of psoriasis, as they are both mediators and effects. It is therefore advisable to include screening for sleep disorders in patients with psoriasis in diagnostic and therapeutic recommendations and in clinical practice.