PSORIASIS

SERUM 25-HYDROXYVITAMIN D LEVELS IN PATIENTS WITH PSORIASIS VULGARIS

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Introduction: Contemporary studies suggest that vitamin D insufficiency is associated with increased risk of a large spectrum of disorders but data concerning psoriasis vulgaris are contradictory.

Objective: To estimate vitamin D status by measuring serum 25-hydroxyvitamin D (25(OH)D) and explore its associations with age, sex, body weight, skin type and disease severity.

Material and Methods: The study including 30 patients with psoriasis vulgaris confirmed by histology and 30 controls was conducted in the Clinic of Dermatology and Venereology, University Hospital, Stara Zagora, Bulgaria in March-May 2018. Clinical and demographic information from hospital stay, ambulatory examinations and questionnaires was collected, BMI and PASI score were calculated. Total serum 25(OH)D was determined with the electrochemiluminescence immunoassay (ECLIA). Vitamin D status was defined as: deficiency with 25(OH)D ≤ 20 ng/ml; insufficiency with 25(OH)D 21-29 ng/ml; sufficiency with 25(OH)D ≥ 30 ng/ml. Comparisons and associations were studied with the independent sample t-test, ANOVA, Chi-square and Pearson correlation test.

Results: Moderate - to severe psoriasis was observed in 14 patients (46.7%) and mild plaque psoriasis in 16 patients (53.3%). Obesity was more common in patients than in controls (p=0.0001). Vitamin D status was evaluated as follows: deficiency - 65.5% of the patients and 73.3% of controls; insufficiency – 24.1% of the patients and 16.7% of controls; sufficiency - 10.3% and 10% respectively. Female sex was associated with lower mean 25(OH)D levels in the whole cohort (females 12.97±5.81; males 21.13±8.86; p=0.0001), as well as in patients (females 12.71±7.25; males 20.61±9.39; p=0.03). In psoriatic patients no correlations was found between 25(OH)D level and PASI score (p=0.2), BMI (p=0.48), age

(p=0.53) and skin type (p=0.66).

Conclusions: Vitamin D deficiency and insufficiency were prevalent both in patients and controls. Female sex was the only significant determinant of low vitamin D levels in the study population.