PHOTOTHERAPY, PHOTODYNAMIC THERAPY

EFFECT OF NARROWBAND ULTRAVIOLET B THERAPY ON SERUM VITAMIN D IN PATIENTS WITH PLAQUE PSORIASIS- PRELIMINARY STUDY.

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Background: Psoriasis is a chronic immune-mediated inflammatory skin disease, affecting up to 4% of general population. In last years, studies about vitamin D status in pathogenesis of psoriasis has been conducted, however the findings are inconclusive. Due to the ambiguous results we decided to evaluate vitamin D status in patients undergoing narrowband ultraviolet (UVB-NB) phototherapy.

Aim: To assess differences in vitamin D status between healthy population and patients with psoriasis and to investigate vitamin D serum levels before, after 10 and 20 sessions of UVB-NB phototherapy.

Materials and methods: 25 patients with psoriasis and 13 healthy individuals of both sexes were included into the study. All subjects signed informed consent before enrollment. To evaluate serum levels of vitamin D enzyme-linked immunosorbent assay was performed. To calculate results Mann-Whitney U-test and Friedmann's ANOVA were employed.

Results: There was no significant difference in vitamin D serum levels between healthy controls and study group (19.96 ± 8.14 vs 21.49 ± 14.28 ng/ml respectively). It was noted that serum levels of vitamin D are increasing during the phototherapy course from 21.49 ± 14.28 at the beginning to 30.35 ± 18.47 after 10 sessions and to 32.52 ± 16.18 ng/ml after 20 sessions (p=0.007).

Conclusions: The elevation of vitamin D serum levels may be a possible mechanism of action of UVB-NB therapy in psoriasis treatment. It is important to investigate the topic further also in patients with higher/lower vitamin D status to evaluate its correlation with treatment outcomes.