Effect of narrowband ultraviolet B phototherapy on serum vitamin D levels in patients with vitiligo

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Abstract:

Background Low vitamin D status has been associated with vitiligo. Narrowband ultraviolet B (NBUVB) therapy has improved vitamin D balance in psoriasis and atopic dermatitis; however, few data are available on such effect in vitiligo and the relationship of vitamin D levels with disease severity and repigmentation. Objective To investigate the influence of NB-UVB phototherapy on vitamin D status in vitiligo patients. Patients and methods The serum levels of 25-hydroxyvitamin D were assessed in 28 vitiligo patients before and after exposure to 24 sessions of NB-UVB treatment. Baseline vitamin D levels of patients were compared with those of 20 age and sex-matched healthy participants. Clinical response was evaluated using the vitiligo area scoring index (VASI) scoring system. Results Insufficient vitamin D levels (o75 nmol/l) were found in 78.6% of vitiligo patients, compared with 15% of controls. The mean serum vitamin D value was significantly lower than that in controls (Po0.001). After phototherapy, a significant increase in vitamin D was observed (Po0.001). The increase in vitamin D was negatively correlated with baseline vitamin D levels. However, there was no significant correlation between vitamin D levels and vitiligo area severity index (VASI) score. Conclusion NB-UVB therapy improves low vitamin D levels in vitiligo patients, which may contribute to its therapeutic efficacy.

Keywords:

autoimmune diseases, 25-hydroxyvitamin D, ultraviolet B phototherapy, vitiligo

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