**Optimization of a physiotherapeutical treatment of psoriasis vulgaris based on a combination therapy with narrowband UVB (311nm) and sulphur-hydrogen**

**sulphide baths**

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**Introduction**

Psoriasis is chronic disease associated with an increased proliferation of epidermal. Due to the relatively high efficiency, the possibility of using artificial sulphur-hydrogen sulphide baths (S-HS) and 311 nm UVB radiation in the place of residence of the patient, balneo-phototherapy is a valuable method for the treatment of patients with psoriasis.

**Aim**

Determine the most optimal scheme of balneo-phototherapy using artificial S-HS baths and UVB 311 nm, taking into account the frequency of the treatment, the size of the initial and subsequent doses of UV radiation and the selection of the optimal concentration of the bath.

**Material and Methods**

The study included 124 patients with psoriasis vulgaris who were randomly assigned into four groups. The subjects were treated with UVB 311 nm (the dose based on the skin phototype) and S-HS baths containing 50 mg/dm3 of hydrogen sulfide in group I, III and 100 mg/dm3 in group II, IV. Treatment was carried out five times (group I, II) or three times a week (group III, IV). The effects of treatment were evaluated on the basis of scales: PASI, BSA, DLQI.

**Results**

The highest proportion of patients who achieved PASI 75 was in group IV. These results were confirmed by an assessment of BSA (84% reduction) and DLQI (92% reduction). Each of the methods was safe.

**Conclusions**

The most optimal method of the balneo-phototherapy - 311 nm UVB and artificial S-HS baths in patients with psoriasis vulgaris is the therapy conducted three times a week using 100 mg/dm3 hydrogen sulfide concentration.