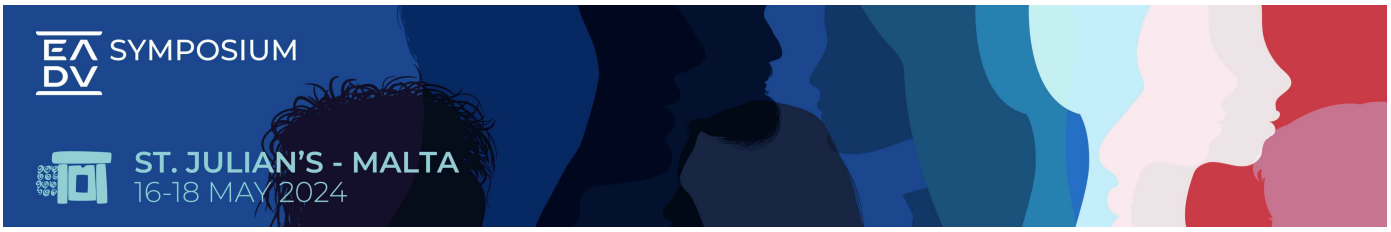

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The condition of skin microbiota in patients with psoriasis is affected by the use of NB UVB

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Introduction & Objectives: Psoriasis is related to the systemic diseases characterised by a complex of mutually conditioned pathogenetic links (immune, neuro-endocrine, infectious, etc.). Microbiocenosis of both healthy and pathologically altered skin can serve thepoint to assess the health of macroorganism. In chronic dermatoses a qualitative and quantitative change in skin microbial associations is observed.

Changes in macroorganismare reflected in disorders of microbial landscape of all skin topographic zones. It should be noted, that the study of microbial skin flora in psoriatic patients is episodic and unstructured. Despite loads of suggested methods and therapeutic means used to treat psoriatic patients, their efficacy remains not high due to the uncertainty of aetiology, disease pathogenesis multi-factority and polymorphism of clinical manifestations. The purpose of our study was to study changes in microbial flora of psoriatic patients skin under NBUVB application.

Materials & Methods: Procedures were conducted 3-4 times a week. The initial dose was 0.1-0.25 J/cm^2 depending on the skin phototype. At each subsequent procedure the dose of irradiation was increased by 0.05-0.1 J/cm^2.Skin microflora was examined by taking smears from affected areas in 34 patients staying under observation. Our control group consisted of 21 healthy individuals. The material was sampled using replica method followed by a microbiological identification of microorganisms.

Results: Microbiological study of skin microflora taken from affected areas in psoriatic patients made it possible to ascertain the prevalence of *S. aureus*, *S. epidermidis, S. saprophyticus*, and *Bacillus* and *Micrococcus genera*.The quantitative composition of microbial skin landscape showed the domination of S. aureus, which concentration increased up to 512.67 ± 34.92 CFU/cm^2 (in healthy individuals – 46.12 ± 3.55 CFU/cm^2, p <0.05).The narrow-spectrum UVB therapy applied to psoriatic patients resulted in a significant inhibition of microbial contamination of the affected skin areas.Specifically, the amount of S. aureus and S. epidermidis in patients was 235.83 ± 24.39 CFU/cm^2 (before treatment– 415.81 ± 14.25 CFU/cm^2 p <0.05) and 42.38 ± 1.95 CFU/cm^2 (before treatment– 93.40 ± 5.38 CFU/cm^2, p <0.05).

Conclusion: Considering the results of our study, it has been established that narrow-band phototherapy produced an accentuated corrective effect on the skin microbial landscape of affected areas in psoriatic patients. A quantitative analysis of skin microorganisms can be used as a prognostic test used to determine nonspecific defence factors at different stages and at different forms of dermatosis