## COMPARATIVE CHARACTERISTICS OF THE CYTOKINE POOL IN PATIENTS

## WITH PSORIASIS AND LICHEN PLANUS

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Heading	ORIGINAL RESEARCHES
Type of article	Scientific Article
Annotation	Objective: to assess the level of interleukin-4 (IL-4), interleukin-8 (IL-8) and interleukin-17 (IL-17) in the serum of patients with psoriasis and lichen planus.  Materials and methods: The study was performed on two groups of patients with a confirmed diagnosis of psoriasis and lichen planus. The first group consisted of 50 patients with psoriasis, including 19 female and 31 male, the average age was 41.4 years. The second group included 50 patients with lichen planus, including 22 female and 28 male, with a mean age of 41.2 years. The control group consisted of 15 healthy individuals, whose indicators were considered normal. The level of IL-4, IL-8 and IL-17 in the serum was determined by enzyme-linked immunosorbent assay.  Results: Our study revealed a tendency to increase of IL-4 in patients with psoriasis and a significant decrease in this indicator by 75% in patients with lichen planus and a unidirectional increase in IL-8 and IL-17 in patients with psoriasis and lichen planus (by 84% and 85%, respectively, in psoriasis and by 76% and 71%, respectively, in lichen planus) compared with healthy donors.  Conclusion: Deep deviations of cytokine balance in patients with lichenoid dermatoses, which had a multidirectional nature with respect to IL-4 (tendency to increase by 16% in psoriasis and a significant decrease by 75% in lichen planus) and unidirectional nature with respect to IL-8 and IL-17 (increased 84% and 85%, respectively, in psoriasis and an increase of 76% and 71%, respectively, in lichen planus) have been revealed in our study.
Tags	psoriasis, lichen planus, pathogenesis, diagnostics, clinical manifestations, chronic dermatoses, interleukins
Bibliography	<ol> <li>Korolenko V. V., Stepanenko V. I. Misce dermatologiyi v suchasnomu globalnomu zdorov'y [The place of dermatology in modern global health]. Ukrayinskij zhurnal dermatologiyi, venerologiyi, kosmetologiyi.2015;57(2): 15–16. (in Ukr).</li> <li>Lopandina A. A., Bolotnaya L. A. Klinichne znachennia prozapalnykh imunnykh mediatoriv pry psoriazi [Clinical significance of pro-inflammatory immune mediators in psoriasis]. Dermatologiya i venerologiya.2018;3 (81):13–16. (in Ukr).</li> <li>Abbas K., Lichtman A., Pillai S. Cellular and Molecular Immunology. 9th Edition, Elsevier, Amsterdam, 2018, 565 p.</li> <li>Mozaffari HR, et al. A systematic review and meta-analysis study of salivary and serum interleukin-8 levels in oral lichen planus. Postepy Dermatol Alergol. 2018 Dec;35(6):599–604.</li> <li>Blauvelt A, Chiricozzi A. The immunologic role of IL-17 in psoriasis and psoriatic arthritis pathogenesis. Clin Rev Allergy Immunol. 2018; 55(3):379–390.</li> <li>Wu P, et al. Cyr61/CCN1 is involved in the pathogenesis of psoriasis vulgaris via promoting IL-8 production by keratinocytes in a JNK/NF-κB pathway. Clin Immunol. 2017 Jan; 174:53–62.</li> <li>Hahn M, Ghoreschi K. The role of IL-4 in psoriasis. Expert Rev Clin</li> </ol>

	Immunol. 2017 Mar;13(3):171–173.  8. Xiaoling Y, et al. Interleukin (IL)-8 and IL-36γ but not IL-36Ra are related to acrosyringia in pustule formation associated with palmoplantar pustulosis. Clin Exp Dermatol. 2019 Jan;44(1):52–57.  9. Luan C. et al. Overexpression and potential roles of NRIP1 in psoriasis. Oncotarget. 2016; 7(45):74236–74246.  10. Chernykh VV, et al. Proliferative and inflammatory factors in the vitreous of patients with proliferative diabetic retinopathy. Indian J Ophthalmol. 2015; Jan 63(1):33–6.  11. Ge X, et al. Renin Promotes STAT4 Phosphorylation to induce IL-17 production in keratinocytes of oral ILichen Planus. Iscience. 2020, Apr 24;23(4): 100983.  12. Mehrbani SP., Motahari P., Azar FP, Ahari MA. Role of interleukin-4 in pathogenesis of oral lichen planus: a systemathic review. Med Oral Pathol Oral Cir Bucal, 2020 may 1;25(3): e410–415.
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