

**Abstract N°: 4746****Study of immunopathogenetic features of psoriasis and acne's course**

Orysa Syzon<sup>1</sup>, Marianna Dashko<sup>1</sup>, Iryna Babak<sup>1</sup>, Iryna Vozniak<sup>1</sup>

<sup>1</sup>Danylo Halytsky Lviv National Medical University, Department of Dermatology, Venereology, Lviv

**Introduction & Objectives:** . The most common in dermatological practice are psoriasis and acne, the pathogenesis of which today is considered from the standpoint of immunopathological diseases. The article analyses features of anamnesis, clinical, instrumental and laboratory tests related to chronic dermatitis (acne, psoriasis, arthropathic psoriasis (AP)), considers the relationship of probable mechanisms of disease aggravation and progression.

**Objective.** The objective of our work was to improve the diagnostics of common chronic dermatoses (acne, psoriasis, AP) taking into account some indicators of the immune system and features of the disease course to specify their role in pathogenesis of these disease.

**Materials & Methods:** A total of 128 patients with acne and 178 patients with psoriasis, among which 57,4 % women and 42,2 % men were observed have been systematically examined. We have examined patients with psoriasis with varying severity of process development, generalization and the severity of skin, the presence of associated pathology. Additional instrumental studies, determination of biochemical, serological parameters and an assessment of immune system have been conducted in AP patients. The content of trigger cytokines (IL-1 $\beta$ , IL-8, IL-17, IL-22) in blood serum, cellular and humoral immunity condition (CD3 +, CD4 +, CD8 +, CD16 +, CD22 +, IgM and IgG levels) have been studied in patients with acne and psoriasis.

**Results:** The clinical course of psoriasis and characteristic features of AP instrumental tests are extremely versatile as well as the depth of their present study is insufficient. Regardless of the disease duration period, we have detected in blood serum of psoriasis patients probable changes in concentrations of stress-response mediators (decreased parameters of cellular immunity (CD3+, CD4+, CD8+ of T-lymphocytes, CD22+ fraction of B-lymphocytes and compensatory increased CD16+ of T-cells, cytokines – IL-1 $\beta$ , IL-8, IL-17, IL-22, immunoglobulins IgM, IgG, and CIC), which indicate tension of their stress-induced mechanisms even despite occasional clinical stabilization of skin and articular process.

Consequently, most of the patients with acne had varying degrees of changes in rates of systemic immunity – the likely reduction in relative and absolute number of total lymphocytes, T-lymphocytes and their subpopulations against the growing number of B lymphocytes and the level of IgM and IgG, which generally indicates the formation in these patients secondary immunodeficiency state of T-link intensified by activation of humoral immunity in response to the development of skin inflammation. The most significant changes in rates of systemic immunity with the depletion of T-cell immunity were found in patients with papular-pustular and pustular acne, and still more significant – in patients with acne conglobate, which justifies differentiated treatment by immunototropic drugs for these patients.

**Conclusion:** In patients with acne and psoriasis, changes in systemic immunity indexes that indicate the formation of secondary immunodeficiency state T-cell link, amid an adequate humoral immunity have been found. Relationship between the causes of changes of systemic immunity has been established. The improvement of patients with acne and psoriasis diagnostics taking into account some indicators of the immune-endocrine system and specifics of the disease course, will contribute to improving therapy and mended quality of life of patients.