PATHOMORPHOLOGICAL CHANGES IN THE EPIDERMIS AND DERMIS IN VARIOUS STAGES AND SEVERITIES OF VULGAR PSORIASIS

Abdullaev Nodirbek Davronbekovich.,
Karimov Rasulbek Khasanovich.
Urgench State Medical Institute.

Abstract. This thesis highlights the characteristics of pathomorphological changes observed in the epidermis and dermis at various clinical stages and degrees of severity of vulgar psoriasis. Increased keratinocyte proliferation, impaired epidermal differentiation, inflammatory infiltration, and microcirculatory changes in the dermis are of great importance in the mechanism of the disease's development.

Relevance of the topic. Vulgar psoriasis is a chronic, recurrent immune-inflammatory skin disease whose morphological manifestations vary depending on the stage and severity of the disease. A comprehensive assessment of changes in the epidermis and dermis allows for a deeper understanding of the pathogenesis of the disease, the identification of clinical and morphological features, and the improvement of diagnostic quality.

Purpose of the research. Characterization of pathomorphological changes in the epidermis and dermis at various stages and degrees of severity of vulgar psoriasis, as well as assessment of their correlation.

Materials and methods. The object of the study is the study of skin biopsy samples from patients with vulgar psoriasis. Histological examination evaluates the thickness of the epidermis, hyperkeratosis, parakeratosis, acanthosis, elongation of epidermal processes, the state of the granular layer, inflammatory infiltration in the dermis, and the state of blood vessels. Morphological results are compared based on the progressive, inpatient, and regressive stages of the disease, as well as clinical severity levels.

Results and discussion. In vulgar psoriasis, changes in the epidermis are observed, such as hyperkeratosis, parakeratosis, acanthosis, reduction or disappearance of the granular layer, and elongation of epidermal processes. In some cases, Munro microabscesses can be identified as a result of the accumulation of neutrophils in the superficial layers of the epidermis. In the dermis, dilation of capillaries, increased vascular permeability, and inflammatory infiltration consisting of lymphocytes are noted.

In the progressive stage of the disease, signs of inflammation and keratinocyte proliferation may be clearly evident. In the inpatient stage, epidermal changes such as acanthosis, parakeratosis, and hyperkeratosis remain stable. In the regressive stage, a

decrease in inflammatory infiltration and epidermal hyperplasia may be observed. Morphological changes may be more pronounced in patients with high severity, but their severity is individual in each patient.

Conclusion. In vulgar psoriasis, pathomorphological changes in the epidermis and dermis are key indicators reflecting the clinical stage and severity of the disease. A comprehensive assessment of epidermal hyperplasia, parakeratosis, granular layer changes, inflammatory infiltration of the dermis, and microcirculatory disorders is important in determining the morphological characteristics of the disease.

References:

1. Murphy M., Kerr P., Grant-Kels J.M. The histopathology of psoriasis. Journal of the American Academy of Dermatology. 2007;57(5):791–800.
2. Garzorz-Stark N., Eyerich K. Psoriasis: Overview and Diagnosis. Clinical Dermatology. Морфологик диагностика бўйича шарҳ.
3. Rongioletti F., et al. The histopathological landscape of the major psoriasiform dermatoses. Frontiers in Medicine. 2021.
4. Park J.Y., et al. Psoriasis or not? Review of 51 clinically confirmed cases reveals an expanded histopathologic spectrum of psoriasis. Journal of Cutaneous Pathology. 2017.
5. Plaque Psoriasis. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing. Эпидермисдаги акантоз, паракератоз ва дермадаги капилляр ўзгаришлар ҳақида маълумот.
6. Абдуллаев Нодирбек, & Каримов Расулбек. (2026). ВУЛЬГАР ПСОРИАЗНИНГ ТУРЛИ БОСҚИЧЛАРИ ВА ОҒИРЛИК ДАРАЖАЛАРИДА ЭПИДЕРМИС ВА ДЕРМАДАГИ ПАТОМОРФОЛОГИК ЎЗГАРИШЛАР. XXI ASRDA INNOVATSION TEXNOLOGIYALAR, FAN VA TA'LIM TARAQQIYOTIDAGI DOLZARB MUAMMOLAR, 4(10), 317–318. https://doi.org/10.5281/zenodo.23638242