CLINICAL, MORPHOLOGICAL, AND IMMUNOHISTOCHEMICAL CRITERIA FOR THE DIFFERENTIAL DIAGNOSIS OF LICHEN SCLEROSUS

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Introduction. Lichen sclerosus is a chronic inflammatory disease of the skin and mucous membranes characterized by sclerotic and atrophic changes. The disorder may clinically mimic several other dermatoses, including scleroderma, vitiligo, and various chronic inflammatory skin conditions, which often complicates accurate diagnosis, particularly at the early stages of the disease. In this context, the combined use of clinical, morphological, and immunohistochemical criteria is of considerable importance for improving the accuracy of differential diagnosis.

Materials and Methods. The study included patients with suspected lichen sclerosus (n = XX). All patients underwent clinical examination, dermoscopic evaluation, and histological assessment of skin biopsy specimens. Immunohistochemical analysis was performed using antibodies against CD3, CD4, CD8, Ki-67, and p53. Marker expression was assessed semi-quantitatively, followed by comparative analysis of the obtained data.

Results. Clinically, the patients presented with areas of hypopigmentation, skin atrophy, and induration. Histological examination revealed epidermal thinning, homogenization of collagen in the dermis, and vacuolar degeneration of the basal layer. Immunohistochemical analysis demonstrated predominance of CD4+ T lymphocytes with moderate involvement of CD8+ cells. The Ki-67 proliferation index was reduced, reflecting suppression of regenerative activity. Expression of p53 was weak.

Discussion. The combination of clinical, morphological, and immunohistochemical findings allows a more precise differential diagnosis of lichen sclerosus in comparison with other dermatoses. The identified immunological features may serve as additional diagnostic criteria and may reduce the likelihood of diagnostic errors. The predominance of CD4+ lymphocytes supports the important role of cellular immune mechanisms in the pathogenesis of the disease, whereas reduced Ki-67 expression is consistent with the clinically and histologically observed atrophic changes. Weak p53 expression may reflect chronic cellular damage associated with prolonged inflammation.

Conclusion. Lichen sclerosus is characterized by a distinct combination of clinical, morphological, and immunohistochemical features. The use of immunohistochemical markers in conjunction with conventional morphological assessment improves the accuracy of differential diagnosis and has important practical value in dermatological practice.

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