

Study of morphological features of skin lesions in patients with psoriasis

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Psoriasis is a skin disease that is accompanied by systemic inflammation and affects about 1 to 5% of the population worldwide.

The **aim** of our research was to determine morphological peculiarities of skin lesions in patients with common psoriasis, investigation of the levels of expression of immunohistochemical markers of vascularization.

Materials and methods. 80 patients with psoriasis were observed. The control group consisted of 20 practically healthy people (donors) of the same age. Skin biopsy with histological evaluation of biopsy materials was performed for all patients to establish form and severity of the course of psoriasis according to requirements of morphological chapter of contemporary classification.

Results and discussion. Applying the scale of intensity of skin vascularization according to Amin M.M. et. al. (2012), it was detected that damaged dermal areas due to psoriasis, on average, had 17.25 ± 5.34 micro vessels at magnification ($\times 400$), which corresponds to the level of moderate vascularization (11–20 capillaries). Normal skin in control group had mean index 4.32 ± 2.01 at ($\times 400$) at the level of weak vascularization (4–10 capillaries), which statistically reliably differs from general group ($p < 0.05$). Analysis of the condition of vascular bed at different levels of severity of psoriasis course showed that a number of cells at moderate degree of severity (22.65 ± 5.87) was considerably higher than at mild psoriasis (10.09 ± 3.22), and even more numerous than in CG (4.32 ± 2.01). Statistically reliably both groups differ between them ($p < 0.05$), and with CG ($p < 0.05$).

According to Fisher's exact test, distribution of absolute meanings of monitoring of intensity of cytoplasmic staining with VEGF marker in all groups between them had a reliable difference ($p < 0.05$). We detected a moderate correlation connection between increased intensity of VEGF expression and amplification of the severity of psoriasis course ($r = +0.430$). According to Fisher's exact test, distribution of monitoring of intensity of cytoplasmic staining with MMP-9 marker in all groups between them had a reliable difference ($p < 0.05$); a moderate correlation connection between increased intensity of MMP-9 marker expression and amplification of the severity of psoriasis course was detected ($r = +0.532$).

Conclusions. The results of conducted clinical, morphological and immunohistochemical investigations enable to consider importance of neoangiogenesis processes in pathogenesis of this dermatosis and need in elaboration of therapeutic measures with direct influence on this aspect of pathogenesis.

The given data are the results of scientific research work 0120U105735