

Study of the role of punch biopsy of the scalp in the final diagnosis of cicatricial alopecia

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Cicatricial alopecia is a severe form of hair loss that affects both men and women. As this pathology develops, the hair follicles die completely, therefore, making a correct diagnosis rapidly affects the possibility of preserving the hair follicles that have not yet been damaged. The disease occurs in 3 % of all alopecia patients and is characterized by a rapid hair loss, with focal lesions in different areas of the scalp.

The cause of cicatricial alopecia is not only injuries or burns, but also a number of skin diseases that can start affecting the scalp. The punch biopsy followed by histopathological examination is usually the key research method to make or confirm the final diagnosis of cicatricial alopecia and preserve healthy hair follicles.

Objective – to study the feasibility and effectiveness of skin punch biopsy in cicatricial alopecia to make the final diagnosis and prescribe effective therapy in time.

Materials and methods. We performed the scalp punch biopsy for 24 patients with unknown cause of cicatricial alopecia aged 18 to 60 y/o, including 14 women (58 %) and 10 men (42 %), within 5 years. The disease lasted more than 5 years in 7 patients (29.2 %), 1 to 5 years in 7 (29.2 %) and less than a year in 10 (41.6 %) patients. The provisional diagnoses were divided as follows: lupus erythematosus was diagnosed in 4 (17.7 %) patients, lichen planus – in 5 (20.8 %), Hoffmann's dissecting folliculitis – in 8 (33.3 %), Pseudopelade of Brocq – in 3 (12.5 %), scleroderma – in 1 (4.1 %) and sarcoidosis – in 1 (4.1 %) patient. The Microsporum caused disease was suspected as the cause of cicatricial alopecia in 2 (7.5 %) patients.

Results and discussion. In 22 patients (91.6 %), the punch biopsy of the skin allowed making the final diagnosis, which corresponded to the provisional one, and, sadly, in 2 (8.4 %) patients, it did not, which forced us to expand the diagnosis using other, more highly specialized and expensive methods.

In 21 (87.5 %) patients, the provisional diagnosis corresponded to the final one (lupus erythematosus – in 3 (12.5 %) patients, lichen planus – in 5 (20.8 %), Hoffmann's dissecting folliculitis – in 7 (29.1 %), Pseudopelade of Brocq – in 3 (12.5 %), squamous cell carcinoma – in 1 (4.1 %), sarcoidosis – in 1 (4.1 %), and Microsporum caused disease – in 1 (4.1 %) patient).

In 6 (25 %) patients, the final diagnosis did not correspond to the provisional one and allowed prescribing the patients an effective pathogenetic therapy.

Conclusions. The scalp punch biopsy is a reasonable diagnostic method for cicatricial alopecia, as it allowed to make an accurate diagnosis in 87.5 % of cases. Thus, the scalp biopsy, being used to confirm or refute diagnoses, allows recommending the necessary pathogenetic therapy in time. The cooperation between a dermatovenerologist and a histopathologist affects the efficiency and results of the diagnostic search of a punch biopsy.