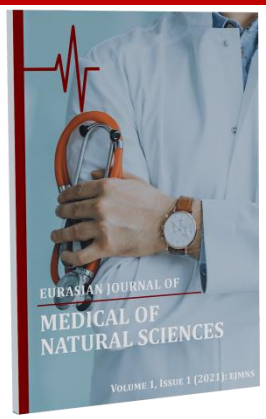
EURASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES
Innovative Academy Research Support Center
UIF = 8.3 | SJIF = 7.921 www.in-academy.uz



MODERN ASPECTS OF THE DEVELOPMENT OF SCARRING ALOPECIA

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https://doi.org/10.5281/zenodo.11401803

ARTICLE INFO

Received: 24th May 2024
Accepted: 30th May 2024
Online: 31th May 2024

KEYWORDS

Alopecia areta, diffuse alopecia, microelements.

ABSTRACT

The article presents data on the current state of the problems of the use of microelements in various types of alopecia, which trigger the data of clinical studies in the use of zinc, selenium, copper, manganese and other trace elements in the fight against alopecia. In addition, the reviews reveal the pathogenetic mechanisms of the development of hair loss in case of deficiency, imbalance and an overabundance of trace elements in the body.

Scarring alopecia is baldness caused by irreversible destruction of hair follicles. In the affected areas, hair falls out, the skin peels off, pain, itching, erythema, and rash appear (crusts, scales, erosions, pustules). The diagnosis is made based on the results of an external examination and histological examination of a biopsy specimen. Trichoscopy and laboratory tests are also performed. Treatment can be carried out using two methods: conservative or surgical. In the first case, immunosuppressive, antibacterial and ozone therapy are used, and injections are made into the lesions. And when using the surgical method, the hair is transplanted.

The development of cicatricial alopecia can be provoked by both hereditary and acquired causes. Among the forms of the disease that are genetically determined, epidermolysis bullosa, nevus, cutaneous aplasia, ichthyosis and ectodermal dysplasia can be distinguished.

Acquired alopecia is caused mainly by oncological diseases, autoimmune diseases caused by infections, and injuries directly to the scalp.

The development of diseases that affect connective tissue, for example, scleroderma or lupus erythematosus;

pathological granulomatosis – tuberculosis, sarcoidosis;

oncological diseases - lymphoma, basal cell carcinoma;

dermatoses - for example, lichen planus;

dermatological infections, including mycoses, staphyloderma, folliculitis;

burns and injuries, such as radiation dermatitis.

The reason why alopecia develops greatly influences its intensity and treatment approach. Sometimes the affected skin completely atrophies and cannot be restored.

Clinical forms of the disease vary. This is due to the fact that hair follicles (HF) are damaged under the influence of numerous factors, and their mechanisms differ. But with any form of the disease, the hair follicles are destroyed, replaced by fibrous tissue.

In the initial stages of cicatricial alopecia, the main role is played by the inflammatory process in the pilosebaceous unit. This is a complex of the bulb, the shaft, the sebaceous gland and the muscle that raises the hair. Inflammation provokes its destruction, as well as follicular stem cells.

Antigenic triggers cause this process. Such inflammations are immune-mediated, which is confirmed by the results of studies of the layers of the skin. IgM was found in them. In addition, T-lymphocytes, Langerhans cells and macrophages were identified in the perifollicular infiltrates. The permanent loss of the hair follicle occurs, in its place scar tissue forms. In the affected area, hair growth is no longer restored.

Method 1 – division into primary and secondary RA

The primary ones have the following main manifestations:

folliculocentric inflammation;

primary damage to the VF;

partial preservation of non-follicular areas of the skin.

And secondary RA is distinguished by the following signs:

the skin is damaged externally or there is non-folliculocentric inflammation;

destruction of follicles is not primary;

Not only the VF is damaged, but also other areas of the skin.

Method 2 - histological classification

This division is based on the features of the inflammatory infiltrate. Based on this parameter, the following forms of cicatricial alopecia can be distinguished:

neutrophilic;

lymphocytic;

mixed.

It is important to accurately establish the form of the disease, since the approach to therapy depends on it.

Frontal fibrous alopecia (FFA)

This type of alopecia develops in women after menopause. Often, before the hair on the head begins to fall out, yellowish papules appear on the face or the patient loses her eyebrows. There is a gradual shift of the hair growth boundary back in the frontoparietal zone, and in the areas where hair used to grow, pale atrophic skin remains, on which stripes are noticeable and veins are visible. Frontotemporal bald patches also form, like in men. Hair loss is observed both on the head, but also under the arms, as well as on the pubis. This type of alopecia progresses slowly.

General clinical and special studies allow diagnosing RA. Among the general diagnostic methods, one can highlight a thorough analysis of the medical history, risk factors accompanying hair loss disorders, laboratory tests of blood composition, and the involvement of specialists in related fields to participate in the diagnosis: oncodermatology, immunology, rheumatology.

RA can have different manifestations, and its development is provoked by a variety of causes. In this regard, it is extremely important to determine the form of the disease. In its manifestations, this type of alopecia resembles seborrheic dermatitis, mycoses, psoriasis, nesting (non-scarring) and some other pathologies.

How many studies need to be carried out and which ones are determined individually for each patient. As a rule, diagnostics are carried out in the following forms:

The doctor visually examines the patient, not limited to the scalp. He pays attention to hair in other places, nails and eyebrows;

A trichological tension test is performed to assess how quickly hair is falling out;

Using computer diagnostics trichoscopy, thanks to the high detail of the image, any changes can be examined.

This is extremely important given the different clinical presentation of each form of alopecia;

a biopsy of damaged skin makes it possible to determine how many follicles are preserved and how viable they are, as well as to evaluate areas of sclerosis;

Thanks to laboratory tests, it is possible to determine that the patient lacks vitamins or microelements, has an imbalance of hormones, a viral disease, and also obtain other information.

The approach to therapy depends on what disease caused the development of alopecia. After the doctor discovers the cause of the pathology, he draws up a treatment program for the RA patient. It may include injections, the use of external agents, and hardware methods. Their general list looks like this:

topical anti-inflammatory drugs (in the form of creams, lotions, ointments) used for noticeable lesions of the skin;

taking systemic medications (cytostatics, antibiotics, corticosteroids, skin smoothers);

injections under the skin (mesotherapy, plasma lifting) to deliver nutrients to the HF and skin;

physiotherapy (bioptron, thermal sauna, darsonval, laser and phototherapy), which can slow down scarring, relieve inflammation, stimulate follicles;

hair transplantation – elimination of the consequences of cicatricial alopecia by surgical method by transplanting healthy follicles from donor sites or skin flaps. To create the visual effect of natural hair, tricopigmentation can be performed.

With cicatricial alopecia, hair falls out permanently. If therapy is started in the early stages of the disease, their loss can be stopped. But sometimes this cannot be done, even if all necessary measures are taken in time. Patients should be informed about the prognosis of the disease and irreversible hair loss.

To prevent the development of cicatricial alopecia, it is necessary to promptly treat infections that affect the skin, avoid burns, and maintain remission of systemic diseases. If you properly care for your scalp and stop inflammation, you can prevent relapses of underlying diseases and slow down baldness. From an aesthetic point of view, it makes sense to use hairpieces, wigs and hats.

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