



## Evaluation of the Effectiveness of Ilbi in Patients with Chronic Diseases Diagnosed with Alopecia

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**Summary:** in this state, the results of the effectiveness of VLOK in 38 patients with a diagnosis of alopecia, treatment and treatment in the regional department of RID and KIATM of Bukhara region. Tsel issledovaniya, opredelenie izmeneniy u bolnyx s diagnozom alopecia s pomoshchyu kompleksnykh metodov obsledovaniya i sootvetstvenno, dalneyshaya optimitsiya kompleksnyx metodov lecheniya.

**Keywords:** vitiligo, VLOK, actovegin, autoimmune thyroiditis, calcitonin, chronic cholecystopancreatitis.

Alopecia areata (AA) is an autoimmune T-cell-mediated disease with multifactorial etiological aspects, characterized by immune disorders of hair follicle cells and subsequent hair shaft loss [1].

In the general structure of dermatological diseases, HA occurs in 0.7–3.8% of cases [2], in the population, the prevalence is 1:1000, and the risk of developing this disease in healthy people during their lifetime is 1.7% [3]. GA is equally common among men and women, the peak incidence occur at a young age from 15 to 30 years with a tendency to reduce the development of the total form with every decade of life [4].

There is evidence of an association of GA with diseases of the dermatological (atopic dermatitis, vitiligo, lichen planus), neuroendocrinological (autoimmune thyroiditis, hypothyroidism), and general therapeutic profiles (paraneoplastic syndromes, collagenoses) [5–7]. In such cases, it is difficult to single out GA as an independent nosology, since all these conditions have common pathophysiological mechanisms with a loss of immunological tolerance.

In some cases, a progressive course, the presence of concomitant neuroendocrine disorders, or an epidemiological focus of mycosis requires careful attention of the doctor, the collection of in-depth anamnestic data, the exclusion of hereditary burden, and the mandatory conduct of additional research methods for the differential diagnosis of the disease with HA.

The pathognomonic symptoms for HA during videotrichoscopy or dermatoscopy are: the presence of “yellow dots” (the mouths of follicles filled with sebum and degenerative keratin), peripilar signs, dystrophic in the form of an “exclamation mark” and broken (cadaverized) hair - a symptom of “black dots” characteristic of the progressive course of the disease. With a long course of GA, keratin plugs can be found in the mouths of the hair follicles - a symptom of pinpoint “white dots” in total and universal forms. Its other variety is fibrotic points that occur in primary cicatricial alopecia, most often observed in the follicular form of lichen planus [8]. In the progressive stage, there is also increased hair loss, expansion and fusion of foci with the capture of neighboring areas and spread to several areas of the scalp, according to the type of ophioid (spread of hair loss from the occipital to the temporal region in the form of a ribbon), sisafio (with expansion of the focus from the frontal to the temporal zone). At the border of the foci in the progressive stage of HA, a zone of loose hair from 2 mm to 1 cm wide is determined, where the hair is easily removed by pulling. With the resumption of hair growth, the appearance of vellus (depigmented vellus hair) is observed, which

indicates the involvement of the melanocytic apparatus of the hair follicle in the autoimmune process [9].

**Purpose of the study:** to identify the effect of combination therapy, including ILBI, on the condition of hair follicles.

### **Materials and methods of research:**

The study included 38 patients: 32 with chronic idiopathic DTA with a disease duration of 8 months to 4 years, 6 without any trichological pathology (control group).

The age of patients with telogen effluvium varied from 21 to 42 years and averaged  $31 \pm 4.2$  years. The mean age of the participants in the control group was  $28 \pm 6.7$  years.

Prior to the start of treatment, a survey of patients with chronic idiopathic DTA was performed: assessment of general clinical and laboratory tests, thyroid hormones (thyroid-stimulating hormone, T3-triiodothyronine, T4-thyroxine), ultrasound of the organs (abdominal cavity and thyroid gland); biochemical and clinical blood tests; identification of possible pathology of the gastrointestinal tract and hepatobiliary system, consultation of an endocrinologist, gastroenterologist and psychotherapist (if necessary). Patients of both groups received treatment using a combination of drugs: Actovegin, which was administered intramuscularly at 2 ml every other day (15 injections) and alternated with intramuscular injections ATP preparation 1% - 1 ml every other day, also 15 injections. In parallel, during the month, patients underwent daily ILBI procedure for 10 days. All calculations were carried out in Microsoft Excel. Differences were considered statistically significant at  $p \leq 0.05$ .

### **RESULTS**

In the study, there were no clinical signs of alopecia in patients of the main group, all the studied parameters were within the reference values, respectively, by sex and age. The content of thyroid hormones also corresponded to normal values. Ultrasound showed no signs of thyroid pathology. No deviations were noted in biochemical parameters, such as total protein, ALT, AST, alkaline phosphatase, total bilirubin, and glucose. There were no signs of anemia in the clinical analysis of blood, the number of erythrocytes and the level of hemoglobin corresponded to the age and gender norm.

At the end of the 6-month course of therapy in patients with DTA, the number of telogen hairs decreased significantly relative to the initial values (to  $15.5 \pm 1.2\%$ ). Their hair density increased statistically significantly: in the occipital region to  $136.6 \pm 18.5$  per  $\text{cm}^2$ , in the fronto-parietal region to  $151.3 \pm 9.8$  per  $\text{cm}^2$ , but did not reach the values of the control group. The hair diameter in patients with chronic idiopathic DTA also increased statistically significantly after treatment: up to  $59.2 \pm 4.2$   $\mu\text{m}$  in the occipital region and up to  $60.5 \pm 3.1$   $\mu\text{m}$  in the fronto-parietal region, but remained statistically significantly lower than in the control group.

In a patient with DTA, the level of ATP before treatment in the anagen bulbs of the occipital zone was  $1.8 \pm 0.6$  U.U., in the fronto-parietal region -  $2.7 \pm 2.2$  U.U., which indicates a pronounced decrease in this indicator relative to the values of the control group. 6 months after the start of treatment, the ATP content in the anagen bulbs in both the occipital and fronto-parietal regions increased statistically significantly relative to the initial values and reached  $7.8 \pm 2.4$  U.E. and  $9.3 \pm 3.8$  U. E respectively.

The therapy was well tolerated; none of the patients had undesirable side effects and allergic reactions.

When conducting a microscopic examination of the roots of preserved hair in all patients with DTA, regardless of the duration of the disease, severe dystrophy, deformation and miniaturization of anagen hair follicles, and an increased content of telogen hair were observed. As a result of the treatment, the quality of the hair shafts improved, which was manifested by smoothing the cuticle, improving the reflectivity of the hair surface, and uniform distribution of the cortical substance.

When interviewed, patients with DTA noted not only a pronounced decrease in the intensity of hair loss, but also an active growth of vellus hair, an increase in volume and a visible improvement in

hair quality. The effect of therapy was assessed by 5 patients as excellent, 16 as good, 7 as satisfactory, and 4 did not notice any positive dynamics.

## CONCLUSION

Combination therapy, including ILBI, ATP and Actovegin, has a positive effect on the condition of the hair follicles, prolonging the anagen phase, reducing the telogen phase, stimulating new hair growth, and can be recommended for patients with chronic idiopathic diffuse telogen alopecia.

## LITERATURE

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