Autoimmune thyroiditis in the conditions of iodine deficiency region

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Abstract: The problem of autoimmune thyroiditis is little studied, despite the wide spread of the disease. Autoimmune thyroiditis accounts for about 3% of total thyroid diseases and is more common in women than in men. If left untreated, it leads to severe systemic disorders [2,6,7,9,10].Autoimmune thyroiditis with its diffuse increase, which is often accompanied by hypothyroidism and the appearance in the blood of autoantibodies to thyroglobulin and thyroid peroxidase [8,11,12]. The main method of treatment for autoimmune thyroiditis is the administration of thyroid hormones (levothyroxine and iodomarin) for replacement purposes [1,3,4,5]. In the hot climate of Uzbekistan, there is an increase in patients with autoimmune thyroiditis, an annual increase of 2.1% [15,18,20]. At the same time, there are still a number of unresolved problems with respect to autoimmune thyroiditis: the etiology and pathogenesis of the disease are not clear enough; there is no single generally accepted classification of autoimmune thyroiditis, there are no clear criteria for diagnosis, there is no pathogenetic therapy for the disease, and approaches to symptomatic therapy are ambiguous [16,17,18,19,21]. In this regard, it is necessary to study the features of the clinic, diagnosis, treatment in an iodine-deficient region [13,14].

Keywords: autoimmune thyroiditis, immune status, thyroid gland, hormonal background, pituitary gland

Purpose of the study: To study the features of the endocrine system of patients with autoimmune thyroiditis, to develop a treatment algorithm, clinic and rehabilitation.

Materials and methods of research:

To solve the tasks set, 32 patients with autoimmune thyroiditis were examined, 20 patients with goiter without autoimmune manifestations were in the control group.

Questionnaire with clinical history, genealogical status, social status, treatment received, screening, determination of thyroid hormones - triiodothyronine (T3), tetraiodothyronine (T4), antibody titer to thyreopyroxidase (anti-TPO); pituitary hormones - thyroid-stimulating hormone (TSH). Ultrasound of the thyroid gland. A

program for identifying patients with autoimmune thyroiditis has been researched and developed, taking into account the ecological features of an iodine-deficient region.

At the first stage of the study, all patients were divided into 6 groups depending on the treatment regimen used: group 1 (9) received L-thyroxine at a dose of 25 mcg; 75 mcg, 4-group (26)-100mg, 5-group (13) 125 mg each, 6-group (13) 150 mcg each.

Some children with subclinical hypothyroidism (in the first group 9 people, in the second - 9 people) continued to use iodine preparations at a dose of 50-200 mcg per day, depending on age.

Results and discussion:

The developed algorithm for the diagnosis, treatment and rehabilitation of patients with autoimmune thyroiditis allows timely identification of rational diagnostic criteria, treatment and rehabilitation.

After the diagnosis was established, it was recommended to use L-thyroxine at a dose of 1.5-3 mcg/kg/day for 6 months. Some children with subclinical hypothyroidism continued to use iodine preparations at a dose of 50-200 mcg. days depending on age. After 6 months, a follow-up study was conducted. In the group of children receiving L-thyroxine, there was an improvement in well-being, there was no or decreased "feeling of a lump in the throat", memory improvement, normalization of stool, as well as positive dynamics in ultrasound examination of the thyroid gland and laboratory parameters. Thus, the increased volume of the gland decreased on average in the first group by 10-15%, in the second group by 13-18%, and the changes in echostructure and echo density in the second group became much less pronounced. In a laboratory study, the following results were obtained:

In the course of treatment, normalization of thyroid hormones and a 2-fold decrease in autoimmune inflammation markers are noted, which indicates a positive trend.

When conducting laboratory studies, there is a slight normalization of thyroid hormones and an increase in the level of thyroid antibodies, compared with the initial ones, which indicates an increase in the activity of autoimmune inflammation.

Consequently, when using iodomarin in patients with chronic autoimmune thyroiditis, therapy is unsuccessful.

At the first stage of the study, all patients were divided into 6 groups depending on the treatment regimen used. The following indicators were selected as defining signs influencing the choice of the dose of the drug: age, volume (cm), thyroid-stimulating hormone TSH (mU/l), free thyroxine-T4 (pmol/l), antibody titer to thyroid-stimulating hormone, ATKh(IU /ml). Thyroid stimulating hormone (TSH) ranged from 1.4 ± 0.8 to 1.6 ± 0.9 mIU/l, Free thyroxine (FT4) ranged from 15.3 ± 0.8 to 14.6 ± 0.87 mmol/l, antibodies to thyroid stimulating hormone (ATkTG) amounted to 354.14 ± 187.35 - 531.47 ± 268.96 IU / ml) The following indicators were selected as defining signs

influencing the choice of the dose of the drug: age, volume (cm), TSH (mIu / l), T4 (pmol / l), Anti TPO (IU / ml) , ATkTG(IU/ml).

Conclusion: Thus, the analysis of clinical data showed that the age of patients ranged from 4 to 18 years and that with an increase in the age of the patient, the dose of the drug also increases. The distributions of five other indicators by groups are given from which it can be concluded that with an increase in volume, TSH and ATKTG, the dose of the drug increases; with an increase in T4, on the contrary, it decreases, and the analysis of the average values of anti-TPO did not reveal a clear relationship.

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