



RELATIONSHIP OF ENDEMIC GOITER AND SOMATIC DISEASES IN ADOLESCENTS IN THE FERGANA VALLEY

Nizamova Zulfira

Department of Endocrinology

Fergana Medical Institute of Public Health

Abstract

Diseases associated with iodine deficiency are a serious medical and social problem, as they largely determine the state of health of the population and the intellectual level of society as a whole. This article examines the relationship between endemic goiter and somatic diseases in adolescents.

Keywords: endemic goiter; teenagers; morbidity; somatic health; diseases.

The territory of the Ferghana Valley is one of the most famous regions of iodine deficiency in the world. Endemic goiter in the areas of the Ferghana Valley in the 1950s and 60s occurred with a frequency of up to 61%. The prophylaxis of goiter with iodized food salt, carried out in the republic since 1952, contributed to a significant decrease in the incidence, on average, to 6% [2]. Unfortunately, since the beginning of the 1990s, in Uzbekistan, as well as in other CIS countries, global control over the provision of the population with iodine has been lost, which has led to a pronounced upward trend in iodine deficiency diseases. A number of other factors also played an unfavorable role: the absence of a national salt industry, a sharp decrease in the import of iodized salt (from Kazakhstan and Russia), the cessation of group iodine prophylaxis, adverse changes in the diet of the population of the republic, and the low level of awareness of residents and medical professionals about iodine prophylaxis. Since 1995, more attention has been paid to the problem of iodine deficiency in Uzbekistan. The government of the republic, with the help of international organizations, has taken a number of measures to strengthen the fight against iodine deficiency diseases.

Negative consequences occur with excessive growth of thyroid tissue and in the absence of treatment. The goiter begins to compress the organs and blood vessels of the neck.

There are various complications:

- persistent dry cough;
- puffiness of the neck and head;
- hoarse voice;





- sore throat when swallowing;
- asthma attacks;
- inflammatory processes in the thyroid gland;
- malignancy of nodular formations;
- Graves' disease (in 1.5-2.0% of cases) with concomitant pathologies of the nervous, cardiovascular, digestive systems, bulging eyes.

Diagnosis of endemic goiter

The patient is prescribed a number of laboratory tests:

- general analysis of blood and urine;
- a blood test for the content of thyroid hormones (due to iodine deficiency, the level of thyroglobulin increases);
- test to determine the daily excretion of iodine in the urine.

Of the instrumental methods for diagnosing endemic goiter, ultrasound of the thyroid gland is the most informative. The examination allows you to determine the localization and size of areas of fibrosis, to assess the degree of tissue growth. According to the results of ultrasound, endemic goiter of the 1st degree can be diagnosed.

In difficult cases, the doctor additionally prescribes a radioisotope scan and / or a puncture biopsy. Results are necessary for differential diagnosis. In particular, a cytological examination of the tissues of the nodes allows you to determine the type of neoplasm, exclude or confirm the oncological nature of the disease.

Treatment of endemic goiter

Therapy depends on the clinical form and extent of the disease. Treatment of diffuse endemic goiter of the 1st degree is reduced to a course of taking iodine-containing drugs. The patient is recommended to include foods high in iodine in the diet: chokeberry, sea fish and seafood, feijoa, fermented milk products.

Endemic goiter with a decrease or increase in gland function requires hormone replacement therapy. During treatment, the doctor monitors the level of hormones in the patient's blood to adjust the dosage.

Patients with nodular goiter should be regularly examined and observed by an endocrinologist. The doctor evaluates the dynamics of the pathology, in case of violation of the thyroid gland function, selects medication.

Surgical treatment of endemic goiter is indicated for a multinodular form of the disease, when the gland grows to a large size and causes compression of nearby tissues and organs. The decision about the possibility of surgery is made by the doctor. Previously, liquid is taken from the nodules with a needle and the material is sent for cytological examination. If malignant cells are found in the goiter, and the neoplasms



quickly accumulate fluid again after drainage, the patient is referred for surgical treatment. After surgery, the patient takes hormonal drugs to prevent relapse.

Acquired endemic goiter is completely cured in 90% of cases. It is important to identify the disease at an early stage and receive adequate treatment.

Changes caused by congenital thyroid disease are irreversible.

Prevention of endemic goiter

In endemic areas, preventive measures are taken:

- Individual. Based on the results of the examination of the patient, the doctor recommends a diet with a high content of iodine, selects the dosage of medications;
- Group. Special preventive measures in endemic areas are carried out among children, adolescents, pregnant women. These categories of the population should receive appropriate nutritional supplements or iodine preparations;
- Bulk. Explanatory work is carried out with the population to fill the shortage of microelements. In areas with a high risk of goiter endemia, the quality of drinking water is monitored, it is recommended to eat foods rich in iodine, iodized salt, and take potassium iodide preparations in courses throughout the year. It is necessary to regularly monitor the level of hormones in the blood.

The daily intake of iodine depends on the age and condition of the person:

- children - 100 mg / day ;
- adults - 150 mg / day ;
- pregnant and lactating women - 200 mg / day .

Newborn babies who receive breast milk do not need additional iodine -containing drugs. The trace element enters the body of infants directly from the mother.

In order to prevent endemic goiter, it is necessary to abandon bad habits. Proper nutrition and a healthy lifestyle reduce the risk of developing the disease. Adults over 40 years of age are advised to visit an endocrinologist annually and undergo an examination.

The Purpose of the Work

To assess the prevalence and specificity of chronic somatic diseases in the population of adolescent boys of two age groups: 11-13 years old and 14-17 years old with goiter and compare them with the same age group, but without endemic goiter.

Materials and Methods

Research and analysis of morbidity were carried out on the basis of the Fergana branch of the Republican Endocrinological Center and a multidisciplinary polyclinic in Fergana, in the period 2015-2022. A total of 926 people were analyzed according to





the attendance data. Boys 11-13 years old were 708 children, 271 of them had endemic goiter of 1-2 degrees, the control group consisted of 437 boys, without endemic goiter. There were a total of 218 young men of the second age group 14-17 years old, of which 87 had endemic goiter, and 131 adolescents entered the control group. The criteria for enlargement of the thyroid gland were: assessment of the size of the thyroid gland by palpation in accordance with the WHO classification (2001), as well as ultrasound imaging, in which an increase in the size of the thyroid gland was considered to be an excess of the volume of the thyroid gland of the 97th percentile per body surface area.

Results and Discussion

When analyzing the incidence in boys aged 11-13 years, it was revealed: the presence of pathology of the upper respiratory tract, including the pathology of the ENT organs in boys with endemic goiter, was in 42.9% of cases against 27.6% (without endemic goiter) Pathology gastrointestinal tract in 12.5% of cases with endemic goiter versus 7.4% without. Moreover, the most common pathology was: chronic gastritis, chronic colitis, biliary tract dyskinesia. Diseases of the cardiovascular system in boys with endemic goiter were detected in 0.83% versus 0.2% without goiter, mainly mitral valve prolapse and infectious-toxic cardiopathy. No similar combinations were found in the analysis of urinary tract diseases. Dysmetabolic nephropathy was more often recorded: 3.3% without goiter, versus 1.8% with the presence of endemic goiter. A slightly different picture emerged when analyzing the incidence in the older age group: the incidence of diseases of the upper respiratory tract decreased to 10.5% versus 6.1%, there was no statistically significant difference in the analysis of the incidence of the gastrointestinal tract 7.6% with endemic goiter versus 7.0% without. incidence of the cardiovascular system increased compared to the younger group, almost 5 times, 4.1% with endemic goiter versus 0.2% without endemic goiter, and such nosologies as: vegetative-vascular dystonia, infectious-toxic cardiomyopathy were more often recorded. Also, the incidence of urinary tract (chronic pyelonephritis, urethritis, balanoposthitis) increased by 1.7 times in 3.0% with endemic goiter, against 1.7% without it. Thus, the prevalence of somatic chronic diseases is more often associated in patients with endemic goiter.

Conclusions

In the population of boys aged 11-13 years, the dominant chronic pathologies were diseases of the gastrointestinal tract and upper respiratory tract, and they were significantly more often recorded in people with endemic goiter than without it. In the population of adolescents and young men of the older age group of 14-17 years, the





dominant pathology was diseases of the upper respiratory tract, cardiovascular system and urinary tract, which were also significantly more often detected in the presence of endemic goiter.

Bibliography:

1. Зокиров М.М. & Касимова, С. А., & Рустамова, И. К. (2019). Нейропсихологическое исследование пациентов с длительной посттравматической эпилепсией. Молодой ученый, (4), 116-118.
2. Sarvinoz, T., & Muzaffar, Z. (2022). Rehabilitation aspects of water therapy in modern medicine. Uzbek Scholar Journal, 6, 102-106.
3. Sarvinoz, T., & Muzaffar, Z. (2022). Rehabilitation for childhood cerebral palsy. Uzbek Scholar Journal, 6, 97-101.
4. Nabievna, M. Y., & Muzaffar, Z. (2022). Literatural review of the relevance of the problem of neurosaisds. Modern Journal of Social Sciences and Humanities, 4, 558-561.
5. Nabievna, M. Y., & Muzaffar, Z. (2022). Modern View on the Pathogenesis of Hiv Encephalopathy. Spanish Journal of Innovation and Integrity, 6, 478-481.
6. Muzaffar, Z., & Okilbeck, M. (2022). Dementia and arterial hypertension. Modern Journal of Social Sciences and Humanities, 4, 19-23.
7. Muzaffar, Z., (2022). Chronic Obstructive Pulmonary Disease in Combination with Cardiovascular Diseases. European Multidisciplinary Journal of Modern Science, 6, 150-155.
8. Зокиров, М., & Мухаммаджонов, О. (2022). Особенности развития тревожных и депрессивных расстройств при заболеваниях, сопровождающихся хроническим болевым синдромом. Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali, 841-844.
9. Зокиров, М., & Мухаммаджонов, О. (2022). Вич энцефалопатия и его патогенетические аспекты. Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali, 855-858.
10. Muzaffar, Z. (2022). HIV Encephalopathy and its Pathogenetic Aspects. European Multidisciplinary Journal of Modern Science, 4, 843-846.
11. Зокиров, М. М., Рустамова, И. К., Касимова, С. А., & Кучкарова, О. Б. (2019). Жарохатдан кейинги талвасада кечки нейровизуализацион ўзгаришлар. In Современная медицина: новые подходы и актуальные исследования (pp. 56-60).





12. Zokirov M., Mukhammadjonov, O. (2022). Cognitive Impairments in Patients with HIV-Associated Encephalopathy. Central asian journal of medical and natural sciences, 3(2), 401-405.
13. Zokirov, M. M., & Mukhammadjonov, O. (2022). Cognitive impairment in patients with Parkinson's disease and optimization of its treatment. Eurasian Scientific Herald, 7, 177-180.
14. Зокиров, М., & Туланбоева, С. (2022). Когнитивные нарушений у пациентов с ВИЧ–ассоциированной энцефалопатией. Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali, 68-73.
15. Muzaffar, Z. (2022). Literature reviews on nervous system damage during hiv infection. Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali, 2(9), 141-147.

