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COMPLEX THERAPY OF ENDEMIC GOITTER WITH THE APPLICATION OF PHYTO- AND VITAMIN THERAPY IN CHILDREN

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ABSTRACT

Endemic goiter is one of the most common non-communicable diseases in the world. Against the background of the disease, there is a dysfunction of the gastrointestinal tract, reproductive function in women, physical and mental development, immunological deficiency, arterial hypertension, atherosclerosis, etc. 117 students of Samarkand State University aged 18 to 25 years were studied. patients were divided into 2 groups: group I (57 patients) – received traditional treatment (iodine preparations), group II (60 patients) – received herbal and vitamin therapy against the background of traditional treatment. Complex treatment of patients with endemic goiter using herbal and vitamin therapy to restore impaired intestinal absorption helps to improve the absorption of iodine and is an effective method of therapy.

KEYWORDS

Endemic goiter, children, iodine, herbal and vitamin therapy, intestinal absorption.

Introduction

Currently, endemic goiter in the Republic of Uzbekistan is one of the most common non-infectious diseases. Against the background of the disease, there is a dysfunction of the gastrointestinal tract, reproductive function in women, physical and mental development, immunological deficiency, arterial hypertension, atherosclerosis, etc. An increase in perinatal and child mortality, inhibition of the activity of organs and systems is also associated with the development of goiter. More than 2 billion people on Earth live in iodine-deficient regions, over 43 million of the world's population suffers from mental retardation, as a result of which goiter is “one of the most common human scourges” [2,3,6].

Solving global problems associated with iodine deficiency requires constant special monitoring of the health of the population, timely detection of thyroid pathology and the development of more effective methods of therapy with preventive measures to eliminate endemic goiter, which is very relevant in medicine [1,2].

In all regions of the Republic of Uzbekistan, according to statistical data, iodine deficiency in the diet remains. Iodine does not accumulate in the body; it must be regularly supplied to the human body through food.

Iodine is necessary for the production of thyroid hormones. With a lack of iodine in the body, patients complain of fatigue, depressed mood, irritability, drowsiness, lethargy, decreased memory and attention. Patients may experience changes in organs and systems. Children often suffer from infectious and acute respiratory diseases. In women of fertile age, reproductive system disorders are observed, accompanied by menstrual dysfunction up to amenorrhea. In the cardiovascular system, changes are manifested by increased blood pressure, arrhythmia, and the development of atherosclerosis. Changes are also observed in the musculoskeletal system. Patients complain of weakness and muscle pain in the arms, a clinical diagnosis of lumbar radiculitis is noted. On the part of the urinary system, general swelling or only pastiness around the eyes is noted, and the administration of diuretics does not improve the condition of patients.

Changes in dietary patterns play an unfavorable role in the development of endemic goiter: a decrease in the consumption of fish and seafood rich in iodine, meat and dairy products, as well as stressful situations, because The stress hormone is adrenaline, which is produced by the adrenal glands, and the more and more often patients worry, the more the thyroid gland becomes tense.

Studies have shown that iodine deficiency leads to disturbances in the structure and function of the thyroid gland (TG), insufficient production of hormones without which adequate growth and development of the body is impossible [3,8].

Consequently, the main reasons leading to the development of this pathological process are: stress conditions [6], impaired intestinal absorption [1,10], mutations in genes responsible for the synthesis of thyroid hormones, autoimmune reactions, contamination of drinking water with impurities that impede the absorption of iodine [6], deficiency of some microelements that promote the absorption of iodine and normal synthesis of thyroid hormones (zinc, selenium, cobalt, copper) [5,12], low iodine content in the environment and drinking water [4], unbalanced diet - rare consumption of fish, meat, seaweed, dairy products, oatmeal and buckwheat [9], the development of infectious and inflammatory processes (helminthic infestations, chronic diseases) [7,11]; unsatisfactory sanitary, hygienic and social conditions [2].

PURPOSE OF THE STUDY

Development of complex therapy for endemic goiter using herbal and vitamin therapy.

MATERIALS AND METHODS OF RESEARCH

The studies were carried out at the Samarkand Endocrinological Dispensary of the Republic of Uzbekistan. 117 students of Samarkand State University aged 18 to 25 years were studied.

Clinical laboratory, biochemical (TSH, T3, T4), instrumental (UTT) and microbiological studies were carried out on all those examined to determine the extent of the disease and assess the effectiveness of treatment measures. The stressful state of the body was assessed by determining the adrenaline content using the HPLC method (high-performance liquid chromatography) [7,9]. The conducted studies are presented in the table.

The patients we examined were divided into 2 groups: group I (57 patients) – received traditional treatment (iodine preparations), group II (60 patients) – received herbal and vitamin therapy against the background of traditional treatment.

Complex therapy included vitamins B, PP, C, pumpkin seeds and elecampane, depending on the severity of the disease, for 3 to 7 days.

THE RESULTS OBTAINED AND THEIR DISCUSSION

A survey was also conducted among students. The survey questions were based on the following criteria: students' awareness of iodine deficiency and their participation in prevention. For each question there were 3 possible answers:

first (100%) - the student is informed and participates in prevention;

second (50%) - student awareness is moderate (periodic), prevention of iodine deficiency combined with high awareness;

third (0%) - the student is practically not informed and does not participate in prevention.

After completing the survey, the following results were obtained:

– 67 (57.3%) of the students surveyed knew well about the role of iodine in the human body;

– 39 (33.3%) students know about the effects of iodine deficiency;

– 11 (9.4%) had virtually no idea about the importance of iodine;

– 9 (7.7%) — regularly received prophylaxis with the drug Iodomarin:

– 45 (38.5%) — received individual prophylaxis irregularly;

– 63 (53.8%) do not receive iodine supplements at all.

Most of the students examined were from rural areas, who heard about endemic goiter only on television from advertisements, less often when undergoing preventive examinations. Most students had no interest in this problem.

When students were asked whether they used iodized salt daily, only 40% of students gave a positive answer, 32% of respondents used iodized salt irregularly, and 47% of students did not use it at all.

The survey revealed that about 37% of students are registered for endemic goiter with an endocrinologist at their place of residence; they receive treatment irregularly and there is no control over the treatment.

34% of patients complained of weakness, fatigue, irritability, decreased performance, memory and frequent colds

The results of studies of goiter patients before and after treatment are shown in Table.

Table Indicators of T3, T4 and adrenaline in endemic goiter

Indicators	**Control**	**Treatment**	
		Before treatment	**After treatment**
T3, nmol/l	1,65±0,12	2,01± 0,17	1,6±0,13
T4, nmol/l	86,2±7,5	118,6±10,4	92,4±8,1
Adrenaline, nmol/l	2,22±0,12	3,54±0,10	2,41±0,14

The content of thyroxine (T4) in patients before treatment was 118.6±10.4 nmol/l (in healthy people - 86.2±7.5), after treatment it was 92.4±8.1 nmol/l, t .e. There was also a tendency towards normalization of this indicator.

The adrenaline content in patients was 3.54±0.10 nmol/l (in healthy people - 2.22±0.12 nmol/l), after complex treatment it decreased to 2.41±0.14 nmol/l.

In patients of group I (57 patients), before treatment, stage I disease was observed in 27 patients, stage II disease was observed in 30 patients.

Group II (60 patients) before treatment, stage I disease was observed in 31 patients, stage II disease was observed in 29 patients. The range of therapeutic measures for endemic goiter depended on the severity of the disease.

We recommended that patients with endemic goiter use anise and elecampane root in powder form, 1 teaspoon 3 times a day for 1 month, along with a complex of B vitamins (B1, B2, B6), nicotinic acid (vitamin PP), ascorbic acid (tincture rose hips) for 3 days depending on the severity of the disease. It has been proposed to exclude margarine and food products made from it from the diet [2,6].

CONCLUSIONS

1. For endemic goiter, it is recommended to use anise root and elecampane in powder form, 1 teaspoon 3 times a day for 1 month, along with a complex of B vitamins (B1, B2, vitamin PP and ascorbic acid for 3 days, depending on the severity of the disease.
2. Complex treatment of patients with endemic goiter using herbal and vitamin therapy to restore impaired intestinal absorption helps improve the absorption of iodine and is an effective method of therapy.

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