

SUBCLINICAL HYPOTHYROIDISM IN WOMEN OF FERTILE AGE

Oybutaeva N. U.

Negmatova G. Sh.

Samarkand State Medical University

Abstract

Excess iodine is known to affect thyroid function, and in predisposed individuals even a moderately increased iodine intake may cause hypothyroidism or hyperthyroidism. In our material, one patient developed hypothyroidism and five patients hyperthyroidism after using commercial health products containing iodine.

Keywords: menstrual irregularities, fertile age, pregnancy, subclinical hypothyroidism.

Introduction

Hypothyroidism refers to insufficient production of thyroid hormones by the thyroid gland and can be primary (a disorder of the thyroid gland itself) or secondary central (resulting from disease of the hypothalamus or pituitary gland). The term "subclinical hypothyroidism" is used to define that degree of primary hypothyroidism in which there is an elevated concentration of thyroid-stimulating hormone in the presence of normal serum concentrations of free thyroxine (T₄) and triiodothyronine (T₃).

Subclinical hypothyroidism can progress to "manifest hypothyroidism" in approximately 2-5% of cases annually. All patients with overt hypothyroidism and subclinical hypothyroidism with a thyroid-stimulating hormone level >10 mIU/L should receive treatment. There is an opinion about the need to treat subclinical hypothyroidism of any severity in pregnant women and women planning pregnancy to reduce the risk of pregnancy complications and impaired cognitive development of the offspring. However, controversy remains regarding the treatment of nonpregnant adult patients with subclinical hypothyroidism and serum thyroid-stimulating hormone levels <10 mIU/L. In this subgroup, treatment should be considered in symptomatic patients with infertility.

Monotherapy with levothyroxine (LT₄) remains the current standard of care for the treatment of primary as well as central hypothyroidism. For most young patients, treatment can be started at the full calculated dose. However, treatment should be started with low doses in elderly patients, patients with coronary artery disease and patients with long-standing severe hypothyroidism. In primary hypothyroidism, treatment is controlled by serum thyroid-stimulating hormone levels with a target level of 0.5-2.0 mIU/L. In patients with persistently elevated thyroid-stimulating hormone levels despite apparently adequate LT₄ replacement dosage, poor adherence, malabsorption, and drug interactions should be assessed. Excessive replacement is common in clinical practice and is associated with an increased risk of atrial fibrillation and osteoporosis and should be avoided.



**Purpose of the Study:**

To study the features of the course of subclinical hypothyroidism in women of fertile age and to develop a diagnostic algorithm.

Materials and Methods

The characteristics of reproductive health were studied in 45 women who applied for drowsiness, memory loss, hair loss and unsuccessful pregnancy and became pregnant after treatment by a gynecologist. Patients underwent an ultrasound examination of the thyroid gland and genital organs, and analysis of free thyroxine and thyroid-stimulating hormone was performed.

Results: It was found that 15 patients examined after total thyroidectomy during treatment with L-thyroxine developed subclinical hypothyroidism. As a result of the study, it was found that 15% of patients had hair loss, 10% had menstrual irregularities, 1% had infertility, 44% had drowsiness, 30% of patients had no complaints; in the control group, 2 patients were diagnosed with subclinical hypothyroidism during pregnancy, 12 patients complained of menstrual irregularities and drowsiness in girls; in all of them, the TSH level was at the level of subclinical hypothyroidism. In 30% of patients, ultrasound of the thyroid gland revealed chronic thyroiditis; in the rest, no pathology was detected. Ovarian cysts were discovered in 9 patients during ultrasound of the genitals. Patients in the control group were prescribed 50 µg of l-thyroxine, and the amount of l-thyroxine was adjusted in patients with hypothyroidism after total thyroidectomy. Conclusions: As a result of examining the patients after three months, it was found that two patients whose thyroid-stimulating hormone levels returned to normal after therapy with L-thyroxine. Two more patients were pregnant after treatment with this method. It was found that the remaining 13 patients developed subclinical hypothyroidism after total thyroidectomy and treatment with L-thyroxine.

References

1. Левченко И.А., Фадеев В.В. Субклинический гипотиреоз. Проблемы Эндокринологии. 2002;48(2):13-22. <https://doi.org/10.14341/probl11502>
2. R. Negro, A. Stagnaro-Green. Diagnosis and management of subclinical hypothyroidism in pregnancy. <https://www.jstor.org/stable/26517473>
3. DS. Cooper, B.Biondi Subclinical thyroid disease. Lancet. 2012;379(9821).
4. Arojoki M. et al. Hypothyroidism among infertile women in Finland. Gynecol. Endocrinol. 2000;
5. Сайфутдинова Р.Ш., Назирова З.А., Турсунов М.М., Турсунова З.А. Структура патологии щитовидной железы у женщин с нарушением фертильности. ЖКМП. -2024.-Т.1.-№1.-С-55-61.