



Research Article

MANAGEMENT OF PREGNANT WOMEN WITH THYROID DISEASE

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ABSTRACT

The course of pregnancy, thyroid status, hormonal levels were studied in 96 women with autoimmune thyroiditis (AIT). It was found that pregnant women have a number of complications (54.8%) from the mother and the fetus, AIT has an unfavorable effect on the course of pregnancy, there is a high risk of miscarriage and termination of pregnancy, there is a decrease in the level of thyroid hormones and an increase in the level of TSH in comparison with similar indicators of healthy pregnant women. For the prevention of complications of gestation and prematurity of pregnancy in women with AIT, a planned determination of TSH blood from early gestation is recommended.

KEYWORDS

Pregnancy, thyroid pathology, autoimmune thyroiditis, thyroid status in pregnant women with AIT, complications in pregnancy with AIT, prevention of thyroid pathology during pregnancy.

INTRODUCTION

In recent decades, thyroid diseases occupy the leading place in the structure of endocrine pathology, along with type 2 diabetes, they are one of the most pressing medical and social problems, which is due to the growing prevalence of thyroid pathology among the population of Uzbekistan, high frequency of temporary and permanent disability. More than 665 million people worldwide have endemic goiter or other thyroid pathologies, and one and a half billion people are at risk of developing iodine deficiency diseases.

Thyroid disease may not only cause reproductive disorders in women and adversely affect foetogenesis, placentation and gestation, worsen pregnancy and childbirth outcomes, adversely affect fetal growth and development, but also significantly affect the woman's body as a whole

and impair quality of life and performance(1,3,7), which makes the problem urgent.

Aim of the study: To investigate the course and outcome of pregnancy and the thyroid status of women with AIT

RESEARCH METHOD

We examined 96 pregnant women with autoimmune thyroiditis (AIT) with gestational age up to 34 weeks of gestation during 2019-2020. The thyroid gland (Thyroid gland) was examined and hormonal background (thyroid hormone, free thyroxine and thyroid peroxidase antibodies were determined) was investigated. An ultrasound of the thyroid gland was also performed. All pregnant women were examined by an endocrinologist and, when indicated, by other specialists. Pregnant women with AIT (60 women) and those with normal gestation (36

pregnant women) without thyroid pathology were divided into 2 groups.

RESULTS

Patients complained of lower abdominal and lumbar pain (28.5%), palpitations (11.4%), irritability (9.1%), tremors (in rare cases), etc. The number of primiparous women was 18 (18.7%), first-time and repeated women were 78 (81.2%). The mean age of primiparous women was 19.4 ± 3.8 years, and of repeated women 27.6 ± 8.7 years. 47% had a grave obstetric-gynecological anamnesis, and anemia was noted in 62% of pregnant women.

Among pregnancy complications, maternal vomiting occurred with almost equal frequency in both compared groups. This complication was mild in most cases. A moderate severity was diagnosed in $8.1 \pm 4.4\%$ of the women in the first group; $6.5 \pm 4.6\%$ in the second; none of the cases were of a severe form. Threatened miscarriage occurred in 34.3% of cases, miscarriages in early and late gestation occurred in 10.8%, and an uncompleted pregnancy occurred in 3.1% of women with AIT. Hypertensive disorders in pregnancy occurred in 9.4% of cases, including pre-eclampsia in 7.3%; no cases of eclampsia

were observed. The ultrasonographic pattern in pregnant women with AIT was characterized by an enlarged thyroid gland, reduced echogenicity, and a mean of 13.9 cm³. Ultrasound findings in the uterus were small in 6.2% and abundant in 7.6% of women, suggesting placental insufficiency. The incidence of placental insufficiency was comparable in the AIT and healthy pregnant women and was $19.0 \pm 4.3\%$ and $16.1 \pm 6.6\%$, respectively. The diagnosis of placental insufficiency was based on ultrasound placenta- and fetometry, Doppler study of blood flow in the arteries of the mother-placenta-fetus functional system, and fetal cardiotocographic examination. Echographic signs of placental insufficiency included symptoms of premature placental maturation (appearance of grade II placenta before 32 weeks, grade III before 36 weeks of pregnancy), decreased or increased placental thickness, and structural changes in the placenta: dilation of intervillous spaces, presence of calcinates and cysts.

One important indicator of placental insufficiency is the state of uterine-placental-foetal blood flow, which is assessed by Doppler study. Blood flow in the right and left uterine arteries, umbilical arteries, aorta and fetal middle cerebral artery

was analysed in the patients who participated in our study. Vascular resistance indices: systolic-diastolic ratio and resistance index were assessed. According to Doppler data, approximately 12% of AIT patients had blood flow abnormalities, with a higher incidence of this complication in patients with initial hypothyroidism. The severity of the dysstress was mild in all cases, together with intrauterine fetal delay in 11.9% of cases.

12% of patients with autoimmune thyroiditis had intrauterine infection, which was almost twice as high as in the control group. It should be noted that our data are consistent with the literature, according to which at least 10% of neonates have intrauterine infection [2,3,6,7]. The diagnosis of intrauterine infection was made based on a combination of clinical and anamnestic findings (inflammatory diseases of the urogenital tract, threat of miscarriage, presence of extragenital foci of infection, especially with an exacerbation of the infectious process during pregnancy, acute respiratory viral infections suffered during pregnancy, etc.), ultrasound markers of intrauterine infection, and laboratory methods to identify infectious agents. Thus, it should be noted

that a total of 54.8% of women had pregnancy complications.

Our studies have shown that the TSH level in AIT patients averaged 2.5 to 3.1 mU/l, which was higher than that in the control group. The thyroxine level was 14.0 mmol/l, its increase in the main group was compensatory for iodine deficiency. At the same time, there was a decrease in free thyroxine and an increase in peroxidase antibodies (TPO)-18.9, which appears to be associated with destructive changes in the thyroid gland and a decrease in its function, which is an indicator of autoimmune damage there.

Particular attention should be paid to the fact that pregnant women have slightly different thyroid status norms than non-pregnant women. The TTH level of non-pregnant women ranges from 0.4 to 4.0 mU/l, and in the first trimester of pregnancy, the TTH level should be in the following range: 0.1-2.5 mU/l is normal; 2.5-4.0 mU/l is a marker of subclinical hypothyroidism; over 4 mU/l is a high probability of manifest hypothyroidism and can precipitate a pregnancy abortion.

We noted that pregnant women with threatened abortion (in the first trimester) had a significant

change in their thyroid status toward hypothyroidism; however, normal TTH values were detected in 42% of the women. In 25% of the patients with threatened miscarriage there was a 25% elevation of the TSH level, which was nearly 10 times higher than the norm. The TSH level associated with subclinical hypothyroidism was detected in 33% of the patients examined.

CONCLUSIONS

Knowledge of the physiological changes in the functional activity of the thyroid gland in a woman in the gestational period and the risk factors of its dysfunction will enable the timely detection of thyroid pathology and prevent related obstetric and perinatal complications. The development of pathogenetically sound therapies in preparation for a planned pregnancy and during its subsequent course will improve the process of pregnancy, the birth of a physically and intellectually healthy child and the prevention of physical health in women.

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