INFLUENCE OF IODINE DEFICIENCY CONDITIONS IN WOMEN ON PREGNANCY AND CHILD DEVELOPMENT

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ABSTRACT

The article discusses the influence of iodine deficiency conditions on pregnant women and children. The authors found that iodine deficiency in pregnant women is accompanied by an increased frequency of miscarriage - 23.2% and anemia-37.1%,

Key words: iodine deficiency in pregnant women, fetal condition and newborn body weight

INTRODUCTION

Iodine deficiency diseases are pathological conditions caused by iodine deficiency, which can be prevented by providing the population with the necessary amount of iodine. Nontoxic goiter is a disease characterized by diffuse or nodular enlargement of the thyroid gland without affecting its function.[1]

Iodine-deficient diseases are one of the most common non-communicable human diseases. The cause of iodine deficiency is insufficient iodine content in the environment and not getting enough of this trace element. For the normal functioning of the thyroid gland, a person needs to receive 100-200 mcg of iodine per day, pregnant women and mothers who are breastfeeding -250 mcg daily in the form of potassium iodide. In the body of a healthy person, 70-80% of iodine accumulates in the thyroid gland. According to the WHO in 2007, about 2 billion people consume insufficient amounts of iodine, a third of them are school-age children. Iodine deficiency 38 million children are born at risk of iodine deficiency every million year.

Some success in the fight against iodine deficiency was achieved in Belarus -191 mcg/l, Ukraine -169 mcg/l, in the UK it ranges from 80-138mcg/ L, China-330.0 mcg/L, Argentina-123 mcg / l, Finland - 63,mcg / l. All residents of endemic iodine-deficient regions are negatively affected by insufficient iodine intake and are at risk of mental decline. Pregnant women are most at risk due to the effect of iodine deficiency on the developing fetus ,the risk of spontaneous miscarriages, congenital malformations of the fetus and the birth of premature babies increases. Prematurity of the fetus in such women is more common than among healthy ones. Some children born to mothers with iodine deficiency suffer from physical and mental retardation, which is expressed in speech defects, deafness and cretinism. As you know, iodine deficiency conditions can be prevented by iodine taken in tiny amounts on a regular basis throughout the life of a person and at very low cost. In 2002, only 19% of women in Uzbekistan consumed iodized salt; as a result of the implementation of programs for the prevention of iodine deficiency, the percentage increased to 53% in 2013.

The manifestations and complication of iodine-deficient pathologies are determined by the patient's age, but the most severe, irreversible and uncorrectable disorders associated with iodine deficiency are changes in the period of embryonic development and infancy.

Lack of the trace element IODUM in the embryonic period of development leads to:

- spontaneous abortion (miscarriage);
- stillbirth;

congenital pathologies in development;

- increased mortality in the perinatal and infantile periods;

- mental retardation (daunism, cretinism), hypothyroidism, pituitary nanism (dwarfism), strabismus, and deafness.
- psychomotor changes, mental disorders of varying complexity.

Iodine deficiency in newborns entails:

-Neonatal hypothyroidism.

impaired mental and physical development;

-increased mortality rate.

According to research conducted by the Russian Academy of Medical Sciences together with WHO, the prevalence of endemic goiter in adolescents in Uzbekistan was 25%, and in some regions of the region up to 40%. Newborns born to mothers with thyroid pathology are a high-risk group. The fight to reduce perinatal mortality is a national task. When developing this problem, it is important to study all the components of the mother-placenta-fetus chain that are responsible for maintaining normal fetal homeostasis and maintaining its viability in pathology.

MATERIALS AND METHODS

According to the tasks set, the comparison group and the group with thyroid pathology consisted of 97 women living in the Bukhara region. Examination of pregnant women was carried out on the basis of polyclinics at the place of residence and the neonatology department of the regional children's multidisciplinary medical center.

For the analysis, we used an outpatient chart of the development of children and women, as well as a medical history of the neonatology department of the Bukhara Regional Children's Multidisciplinary Medical Center.

RESULTS AND DISCUSSION

65 pregnant women and their newborns were monitored. All pregnant women were divided into the following groups: pregnancy with diffuse non-toxic goiter accompanied by an increased frequency невынашиванияof miscarriage -23.22%, anemia 67.1%, fetal development delay (18.6%), posthypoxic lesions of the central nervous system of newborns (17.1%)

The comparison group consisted of 32 randomly selected pregnant women without any endocrine pathology and without indications. In addition to the clinical examination methods generally accepted in obstetric practice, a number of special research methods were included in the research methods. The diagnosis of thyroid pathology was established on the basis of: a clinical examination by a general practitioner and an endocrinologist, the thyroid gland was examined using an ultrasound machine. In the comparison group, anemia occurred in 4.0% of newborns and posthypoxic CNS lesions in 3.2% of children.

If in the comparison group the value of body weight loss of newborns was 6%, then in the second group it was 9%. Obviously, these changes indicate a violation of the processes of adaptation of the newborn.

Thus, children born to mothers with thyroid pathology, regardless of its type and condition, should be classified as high-risk and recommended for medical follow-up.

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