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MODERN METHODS OF DIAGNOSIS OF THYROID DISEASES

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ABSTRACT

The above literature review allowed us to consider modern methods of diagnosing diseases thyroid gland. The diagnostic capabilities of clinical and anamnestic, laboratory and instrumental methods, which differ in their informative content and invasiveness, were analyzed.

Despite the general global trend towards an increase in the frequency of thyroid diseases in children, prevalence rates and the incidence of this endocrine pathology in recent years has hardly changed or even unreasonably decreased, which is probably due to reducing the level of timely diagnosis [5, 15]. Other diseases of the thyroid gland they were reported much less frequently (diffuse non-toxic goiter of II–III degrees-in 3.7%, thyroiditis — in 1.14%, hypothyroidism — in 0.56%, nodular goiter-in 0.39%, thyrotoxicosis-in 0.07%, postoperative hypothyroidism — in 0.03% of cases) [5].

Endocrinology is an intensively developing branch of medicine, so when studying diseases, special attention is paid to the genetic mechanisms that determine their development [1]. So, for example, changes expression of the UGT2B15 gene can lead to hypertrophy and hyperplasia of thyroid follicle cells glands, and glucuronosyltransferase encoded by this gene is involved in one of the decay pathways. At the present stage, the diagnosis of thyroid diseases is carried out using generally accepted clinical and anamnestic, laboratory and instrumental methods, which they differ in their informative content and invasiveness [2, 12].

Clinical and anamnestic methods include identifying complaints, collecting Anamnesis of the disease, and objective research as a general condition of the child, so are the states of target organs — the cardiovascular system, central and peripheral nervous systems, mental sphere and digestive organs involved to the pathological process in diseases of the thyroid gland in children. Actually, the clinical manifestations of thyroid diseases are characterized by the leading syndromes, among which can be distinguished asthenovegetative, pain (cephalgia, cardialgia, abdominal pain), cutaneous, anemic.

In children with thyroid diseases, and especially with congenital hypothyroidism, according to protocols of the providing medical care to children with endocrine pathology and recommendations it is necessary to additionally perform electrocardiography to diagnose cardiac arrhythmias and determination of bone age, radiography of the knee joints, feet and hands for timely differential diagnosis and detection of lesions of other organs and systems, evaluation of the effectiveness of the prescribed treatment [12, 14].

The interest of surgeons in the diagnosis and treatment of nodular formations of the thyroid gland does not weaken. It is supported by an increase in their prevalence (over the past 10 years, the incidence of ultrasound in children has increased 6 times), the risk of detecting oncological pathology, unresolved issues of diagnosis and treatment tactics [1, 2, 8]. To date, one of the most debatable issues in pediatric surgery remains the choice of the optimal volume of surgery for ultrasound [7, 8].

The issue of testimony and the volume of surgical treatment of diffuse toxic goiter (DTZ) in children [3, 6]. DTZ is manifested by an increase in the entire thyroid gland, a syndrome of damage to the cardiovascular system, damage to the central and peripheral nervous system, a variety of clinics to monitor the situation in diagnostically difficult cases. Girls get sick 6-8 times more often in the puberty period. Among the methods of treatment in children, conservative and surgical are used. The volume of the operation remains an unresolved issue [3, 6]. Various subtotal resection (CP) techniques are more often used. In recent years, there have been works on thyroidectomy (TE) in DTZ. As for the treatment of DTZ with radioactive iodine, it should be noted that it is undesirable to use it in children for well-known reasons. In addition, in our country, the relative rarity of using radioactive iodine treatment is explained by the small number of radiotherapy centers [5].

Conclusion.

Thus, as a result of the analysis performed modern methods of diagnosis of thyroid diseases were considered in the literature. Knowledge the diagnostic capabilities of clinical - anamnestic, laboratory, invasive or non-invasive methods contribute to the early diagnosis of endocrine diseases such as congenital or non-invasive acquired hypothyroidism, diffuse or nodular goiter, thyrotoxicosis (hyperthyroidism), autoimmune thyroiditis, help to identify concomitant pathology with sides of target bodies, which will allow timely and timely it is most effective to carry out medical and preventive measures in children, improve their socialization, quality of life and prevent the development of disability.

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