

23. IMAGING OF THE THYROID NODULES

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Introduction. During the last decades, there has been mentioned a rejuvenation of the pathology of the thyroid gland, including thyroid nodules. Precancerous conditions such as thyroid adenoma, autoimmune thyroiditis (Hashimoto's disease) and toxic nodular goiter represent an increased risk of malignancy that ranges between 4.0-6.0%. In our country, the number of primary thyroid cancer increases annually up to 3% per 100 000 population, women being affected 10 times more often than men. The maximum vulnerability is registered at the age between 34-45 years, but recently there has also been observed an increase of the incidence of tumors in children. In the last two decades WHO reports a doubling of thyroid cancer, with a mortality up to 1% of all deaths caused by cancer.

Aim of study. The goal of our research was to establish the topography and morphological aspects of the thyroid nodules, and the correlation between clinical parameters and nodule malignancy.

Methods and materials. The study was carried out on 140 patients of both genders, aged between 1 and 74 years that have been diagnosed with primary thyroid nodules at the Republican Diagnostic Center. Out of the total number 89 patients were examined by ultrasound method (15 male/74 female), and 51 of them (8 male/43 female) by scintigraphy.

Results. The ultrasound examination revealed 41 cases of thyroid nodules, among which 9 males and 32 females. Out of 41 patients with thyroid nodules 14 were diagnosed with multiple bilateral nodules; in 4 cases colloidal cysts were revealed; in 3 cases diffuse changes characteristic for autoimmune disturbances have been marked out, and in 20 cases a single unilateral nodule was identified. The scintigraphy scan pointed out in 26 patients, nonfunctioning or "cold" nodules and in 8 cases "hot" nodules were established. In 7 patients diffuse toxic goiter was established; in 2 patients acute or subacute thyroiditis was diagnosed; in other 2 cases abnormal sublingual thyroid gland was present; and 3 patients were diagnosed with hypertrophy of the thyroid gland.

Conclusion. The incidence of thyroid nodules prevailed in females. In 48.8% of cases a single unilateral nodule was established and in 34.1% of cases multiple bilateral nodules were revealed. The "cold" nodules prevailed compared to "hot" nodules with a ratio 3.07:1.