

SPECIFICITY AND SENSITIVITY (FEEDABILITY) OF URGENT HISTOLOGICAL STUDY OF SURGICAL MATERIAL

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Abstract. The main diagnostic method for identifying benign neoplasms was postoperative histological examination, but given the high probability of their malignancy and a number of other factors complicating their course, it would be necessary to initially recommend the use of a comprehensive preoperative examination and active surgical tactics in the early stages of the disease.

Keywords: Urgent histological examination of surgical material, postoperative histological examination, benign nodular formation of the thyroid gland.

INTRODUCTION

The problem of timely detection of endocrine pathology remains relevant today [3]. Nodules of the thyroid gland without clinical manifestations of its dysfunction are quite common [1]. The incidence of thyroid cancer is steadily increasing, the number of operations for these formations is increasing, the proportion of which is 85–95% of the total number of patients operated on for various diseases of the thyroid gland [2]. All this points to the need to improve existing diagnostic methods and search for new ones.

MATERIALS AND METHODS

Due to the growing number of patients with thyroid cancer all over the world, the choice of diagnostic tactics for nodular diseases of the thyroid gland is relevant [3]. Comprehensive diagnosis of thyroid diseases does not necessarily mean the use of the entire arsenal of diagnostic methods available to the clinician today, but only those that can provide maximum information about the patient in a particular situation [1]. Thus, one of the diagnostic methods – regular preventive examinations of the population – makes it possible to detect non-palpable foci of tumor growth up to 2–3 mm in diameter during ultrasound examination of the thyroid gland and increases the probability of detecting nodules of the thyroid gland to 40% [4].

RESULTS AND DISCUSSION

A retrospective analysis of 91 medical records of inpatients who received surgical treatment for suspected thyroid cancer was carried out.

A study was conducted of the diagnostic measures of 91 patients with benign thyroid formations. The conclusions of histological studies are presented in the table.

It is important to note that some patients had several thyroid diseases at the same time.

Results of histological studies

Disease	Indicator of final histological examination		Urgent histological examination indicator	
	abs	%	abs	%
Nodular goiter	12	13,2	13	18,6
Diffuse nodular goiter	9	9,9	2	2,8
Follicular adenoma	42	46,1	37	52,8
De Quervain's autoimmune thyroiditis	2	2,2	2	2,8
Follicular tumor	13	13,2	11	15,7
Cystic nodular goiter	1	1,1	—	—
Atypical A-cell follicular adenoma	3	3,3	—	—
Microfollicular nodular goiter	1	1,1	—	—
Micro-, macrofollicular nodular goiter	2	2,2	—	—
Colloid goiter	1	1,1	—	—
Atypical follicular adenoma	2	2,2	—	—
Hashimoto's thyroiditis	1	1,1	—	—
Micro-, macrofollicular adenoma	1	1,1	—	—
Thyroiditis	9	9,9	—	—
Papillary cancer	—	—	2	2,8
Adenomatous goiter	—	—	1	1,4
Oncocytic adenoma	—	—	1	1,4
Lymphoma	—	—	1	1,4

According to the final histological examination, it was found that 46.1% of patients were diagnosed with follicular adenoma, 13.5% - follicular tumor, 13.2% - nodular goiter; the remaining diseases of the thyroid gland were distributed as follows: 9.9% - thyroiditis, diffuse nodular goiter, 3.3% - atypical A-cell follicular adenoma, 2.2% - micro-, macrofollicular nodular goiter, autoimmune de Quervain's thyroiditis, atypical follicular adenoma, 1.1% – colloid goiter, cystic nodular goiter, microfollicular nodular goiter, Hashimoto's thyroiditis, micro-, macrofollicular adenoma.

The conclusions of the intraoperative urgent histological examination were distributed as follows: in 52.8% of cases, follicular adenoma was established, 18.6% was represented by nodular goiter; The following pathologies were also identified: 15.7% – follicular tumor, 2.8% – diffuse nodular, autoimmune thyroiditis and papillary cancer, 1.4% – adenomatous goiter, oncocytic adenoma and lymphoma.

In 7% of patients, there was a discrepancy between the urgent and final histological conclusions. Inconsistency in diagnosis occurred in patients with colloid goiter, autoimmune de Quervain's thyroiditis, Hashimoto's thyroiditis and diffuse nodular goiter. The data obtained may indicate the complexity of intraoperative diagnostics. Also, some patients underwent fine-needle aspiration puncture biopsy, which served only as an addition to diagnostic measures, without playing a leading role in diagnostic methods, as a result of which the operations performed on patients were of a diagnostic nature.

Thus, the relatively small percentage of diagnostic inconsistencies makes it advisable to use urgent histological examination to establish diagnoses, including various forms of benign thyroid tumors.

Most often, the conclusions of histological studies confirmed the spread of follicular adenoma, tumor and nodular goiter. In this case, the largest average size of the neoplasm corresponded to nodular goiter, amounting to 3.3 cm (for follicular adenoma - 2.5 cm, for follicular tumor - 1.8 cm). The frequency of detection of nodular goiter is explained by the fact that iodine deficiency is of leading importance, as a result of which defects in its metabolism lead to a decrease in the concentration of thyroid hormones in the blood, which, through a feedback mechanism, is accompanied by increased production of thyroid-stimulating hormone, the consequence of which is a compensatory increase in the number of thyrocytes, which causes a goitrogenic effect, and a study conducted in an endemic area fully proves this causative factor.

CONCLUSION

In this study, the puncture method was not the main diagnostic method; therefore, the operations performed were of a diagnostic nature. However, it is worth noting that, according to the literature and studies conducted, it has been established that a special place in the examination scheme of patients with thyroid nodules is occupied by fine-needle aspiration puncture biopsy under ultrasound control with subsequent cytological examination of the puncture. Also, this diagnostic method helps eliminate the use of inappropriate operations that involve removing "conditionally healthy" organ or part thereof.

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