Hyalinizing Trabecular Tumor of thyroid gland in 17-year-old boy- case report



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Background

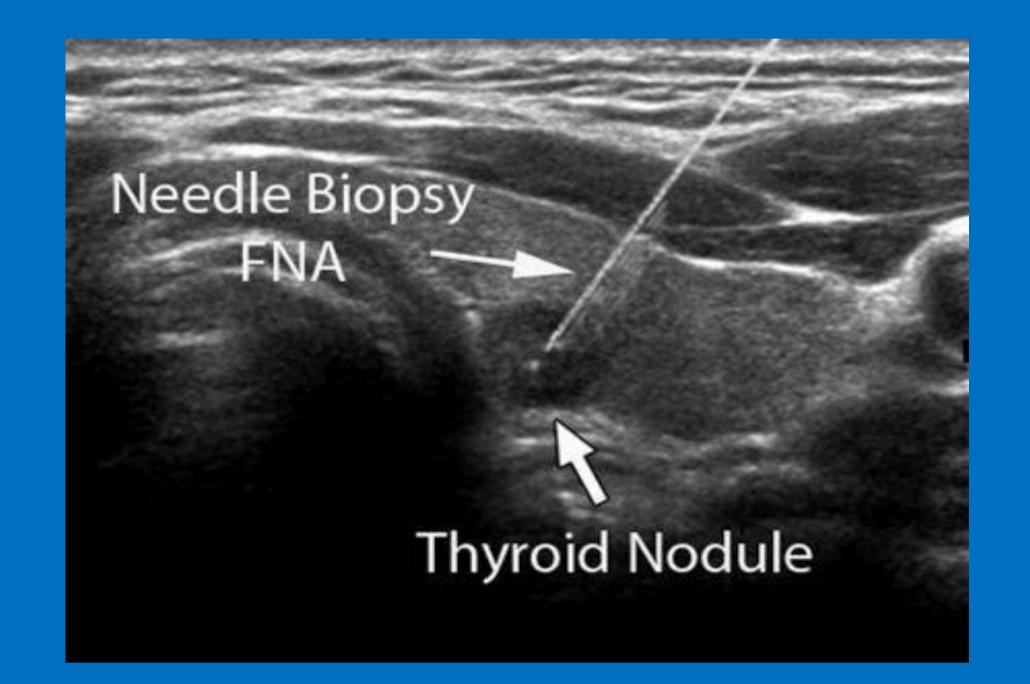
Hyalinizing trabecular tumor is a rare, begin thyroid neoplasm, which shares some histologic features with thyroid papillary carcinoma or medullary carcinoma. Sometimes it is misdiagnosed as papillary carcinoma on fine-needle aspiration cytology (FNAC). The etiology of hyalinizing trabecular tumor is unknown. The tumor may arise in a background of chronic lymphocytic thyroiditis, multinodular goiter, or after radiation exposure. Hyalinizing trabecular adenoma (HTA) is predominantly diagnosed in middle-aged women. In children it is casuistic.



Case report

We present the case of 17-year-old boy, who was diagnosed in our Outpatient Clinic of Endocrinology due to an asymptomatic left neck mass suggestive of a thyroid tumor. Clinical examination confirmed the diagnosis of the nodule within the left lobe of thyroid gland, without lymph nodes metastases. Serum thyroid hormones and thyroid antibodies were in normal range. An ultrasound of the neck confirmed the presence of a primarily solid nodule measuring 38,7x24,5x28,7 mm with mix blood flow within left lobe of the thyroid. ROI 1/ROI 2= 5.

Patient with the nodule of thyroid gland



Fine- needle apsiration cytology of thyroid nodule during ultrasonography of thyroid gland

R	es	u	lts

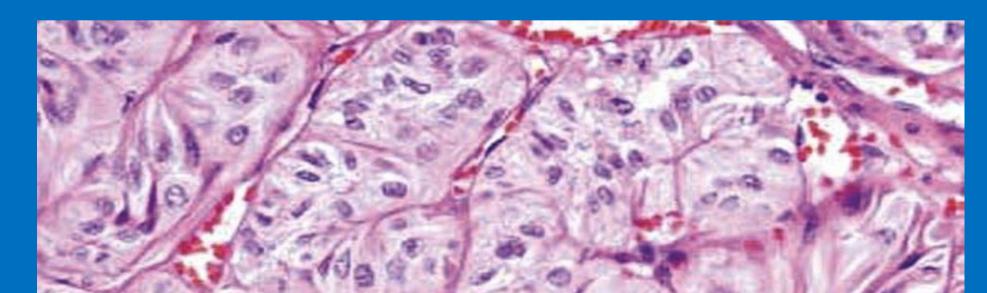
at the	3 weeks	6 months
diagnosis	after	after

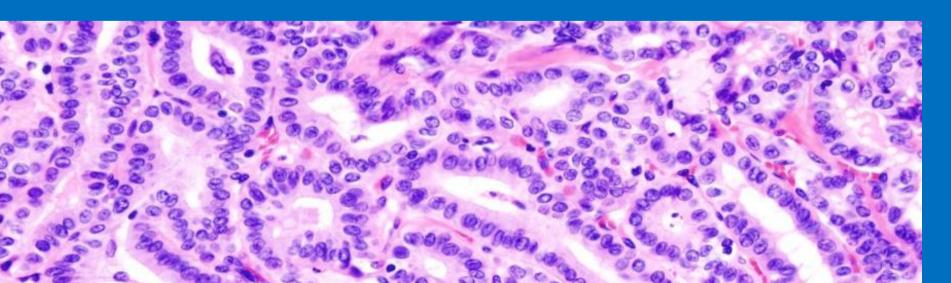
Total thyroidectomy was performed, with hypothyroidism as a postsurgical complication. Immunohistochemistry was positive for thyroglobulin but negative for calcitonin, eliminating the possibility of medullary carcinoma. The cells of tumor had a Ki-67 reactivity at the cell membrane and cytoplasm, characteristic of hyalinizing trabecular tumor. There was no area of focal capsular invasion. A final pathological diagnosis of hyalinizing trabecular adenoma was reported. The patient's treatment with an ablative dose of radioactive iodine was redundant. Now he is euthyroid with thyroid replacement and has no evidence of recurrence at 6 months of follow-up.

		operation	operation
TSH (μIU/ml)	1,8	24,5	0,5 (with I- thyroxin replaceme nt)
fT4 (ng/ml)	1,6	0,5	1,8
anti-TPO (IU/ml)	8,9		
anti- ATG (IU/ml)	12		

Comparison between normal thyroid cells, hyalinizing trabecular tumor of thyroid and thyroid papillary carcinoma histopatology









Conclusions

Distinction of hyalinizing trabecular adenoma from thyroid papillary carcinoma in cytologic specimen is very difficult.
Diagnosis of a thyroid tumor determinate appropriate management.

