A thyroid nodule discovered in a patient with Graves`disease (GD) should be evaluated and managed according to guidelines. A subcentimeter incidental thyroid cancer founded in a patient with GD, without high-risk history, without suspicious sonographic (US) features has not been reported yet.

A 40 year–old female patient, presented to our hospital with symptoms of thyrotoxicosis. On physical examination heart rate was 120 bpm, blood pressure of 130/90 mmHg, with a nontender thyroid gland, with murmurs on auscultation, without nodules on palpation. No exophtalmos or skin changes were noted. The patient was under treatment with Methimazole 5mg twice daily and beta blocker, since seven months. Laboratory investigations showed AST: 93 I/l, ALT: 156 U/l (N:<40U/m). Thyroid function tests revealed freeT3: 22.52 pg/ml (N: 2-4.4), freeT4: 63.04 ng/dl (N: 10.6-19.4) and TSH: 0.003 uIU/ml (N: 0.35-4.94). TRAbs: 1.8 UI/ml (N<1). A thyroid ultrasound detected a diffuse enlargement with diffuse hypervascularity of thyroid, with a hyperechoic rounded nodule measuring 9 mm × 6.4 mm in the left lobe (with regular borders, with halo, without microcalcifications) and a hypoechoic right lobe. A scintigraphy showed an increased diffuse uptake, suggestive of GD. Fine needle aspiration biopsy (FNAB) was not performed. Our patient underwent a total thyroidectomy after two months, in a euthyroid state. Histopathological examination of the thyroid gland showed a focus of papillary microcarcinoma, follicular variant, lying into the nodule detected on US.

Thyroid cancer occurs in GD patients with a frequency of 2% or less. We refered a case of incidental thyroid cancer in a Graves`disease with no malignant ultrasound features. We conclude that the presence of benign nodules on ultrasonographic examination does not reduce the risk of malignancy. We recommend a FNAB in all nodules detected on ultrasound in Graves` disease and early total thyroidectomy in these cases.

KEYWORDS: Graves`disease, Thyroid Cancer, Fine Needle Aspiration Biopsy