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Introduction

➤ Association between high thyrotrophin receptor antibodies (TRAb) and relapse of thyroid cancer in Graves' patients was reported previously. In this study, we aimed to investigate possible relation between TRAb and thyroid malignancies in patients with toxic multinodular (TMNG) and toxic nodular goiter (TNG).

Methods

➤ Thyroidectomized patients with a preoperative diagnosis of TMNG, TNG and euthyroid multinodular or nodular goiter (MNG/NG) were retrospectively recruited for the study. Preoperative TRAb measurements were available in 221 patients with TMNG/TNG and 43 patients with euthyroid MNG/NG. Results were compared in these two groups.

Results

➤ Histopathology was malignant in 71 (32.1 %) and benign in 150 (67.9 %) of TMNG/TNG patients. In euthyroid group, malignancy was observed in 18 (41.9 %) and benign histopathology was observed in 25 (58.1 %) patients. In TMNG/TNG group, TRAb was positive in 7 (9.9%) patients with malignant and 17 (11.3%) patients with benign histopathology (p=0.742). In euthyroid group, TRAb was positive in 1 (5.6%) patient with malignant and 2 (8.0%) patients with benign histopathology (p=0.756). TRAb positivity did not change between TMNG/TNG and euthyroid patients with malignant and benign histopathology (p=0.569 and p=0.620, respectively) (Table 1).

Table 1. Thyrotrophin receptor positivity in toxic multinodular/toxic nodular goiter and euthyroid multinodular/nodular goiter according to final histopathology

	Euthyroid multinodular /nodular goiter (n=43)	Toxic multinodular /toxic nodular goiter (n=221)	<i>p</i>
Malignant	<i>n</i> =18	<i>n</i> =71	
TRAb positivity	1 (5.6%)	7 (9.9%)	0.569
Benign	<i>n</i> =25	<i>n</i> =150	
TRAb positivity	2 (8.0%)	17 (11.3%)	0.620

Conclusion

➤ TRAb positivity seems to have no effect on malignant histopathology in patients with TMNG and TNG. Limited number of cases and lack of TRAb measurement in all TMNG/TNG patients undergoing thyroidectomy might contribute to this finding.