

THYROID CANCER IN HYPERTHYROID PATIENTS TREATED BY SURGERY

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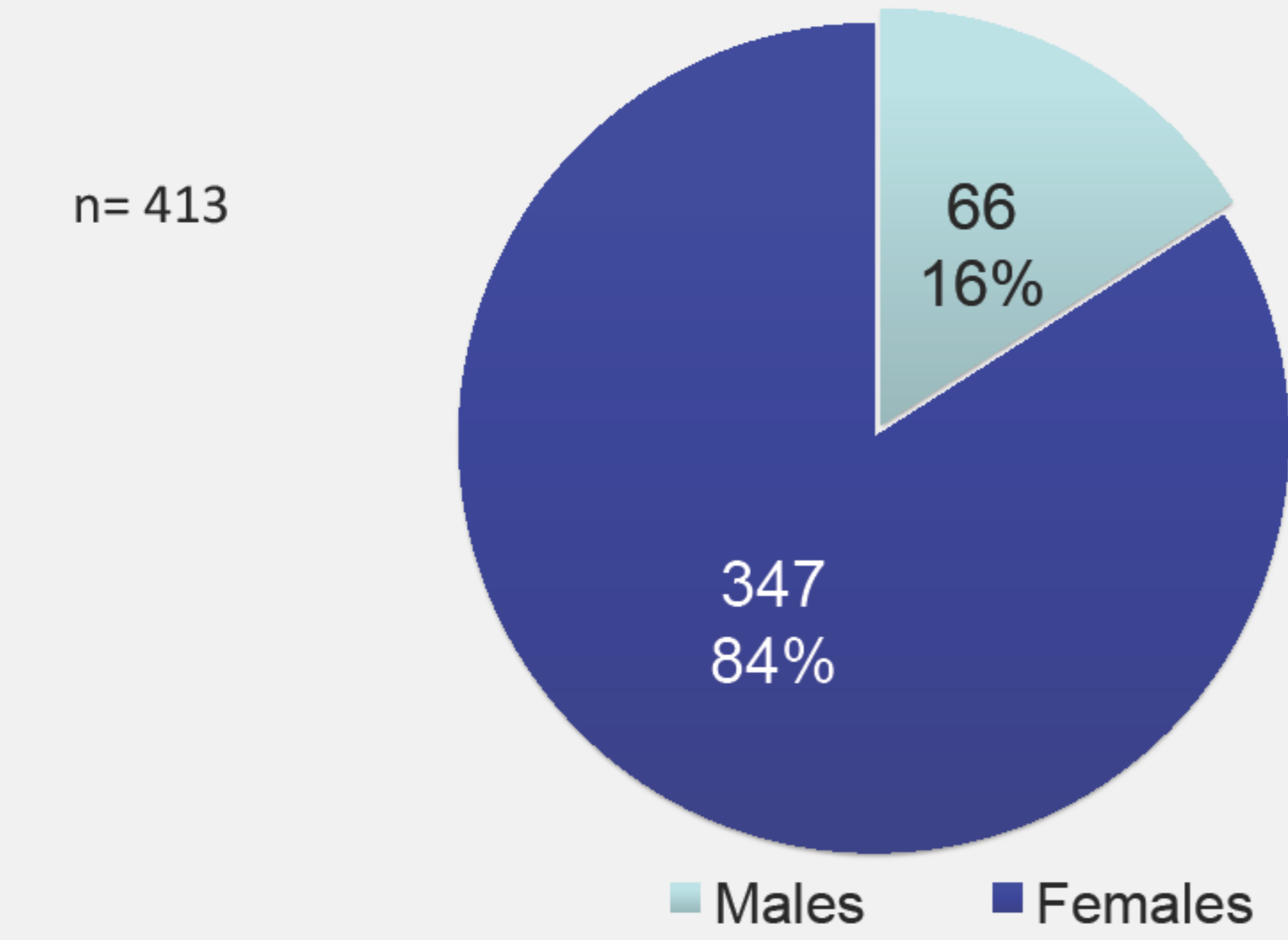
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INTRODUCTION: The association of hyperthyroidism and thyroid cancer (TC) has been debated for a long time with prevalences in the literature ranging from 1.65 to 32.8% . Some authors have found that TC is associated with hyperthyroidism, particularly with Graves disease (GD). While some studies suggest that differentiated TC coexisting with GD is more aggressive than in euthyroid patients, others do not confirm this.

AIMS : To assess the prevalence of TC (incidental and non incidental) in hyperthyroid patients - due to GD, multinodular toxic goiter (MNTG) and toxic adenoma (TA) - treated by surgery and to evaluate differences amongst tumors according to hyperthyroidism etiology.

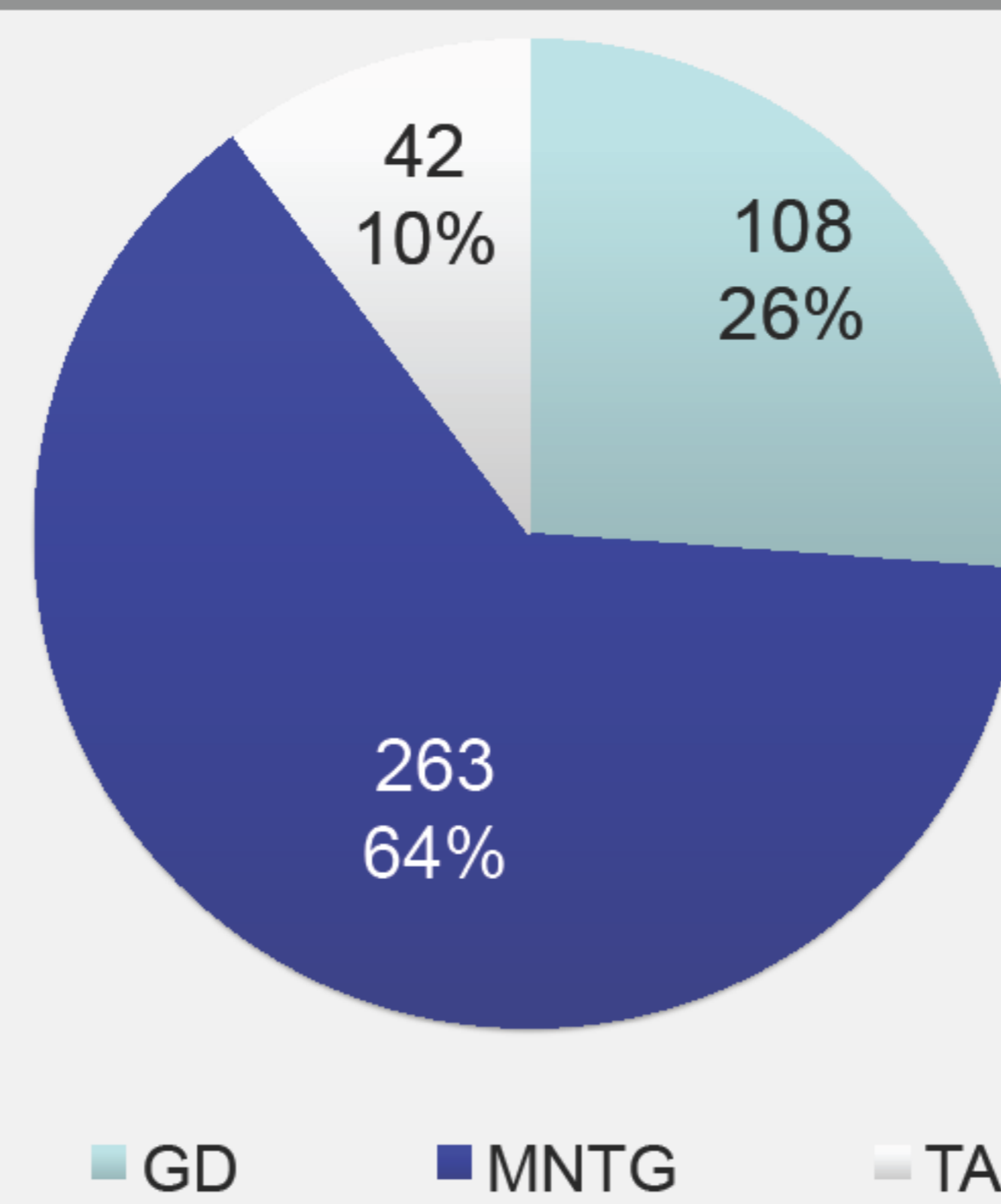
METHODS: Retrospective review of clinical and histopathological data of all patients older than 18 years, with previous diagnosis of hyperthyroidism, that underwent surgery between 2005 and 2015 at our institution. Statistics was done with IBM SPSS Statistics for windows version 22.

RESULTS

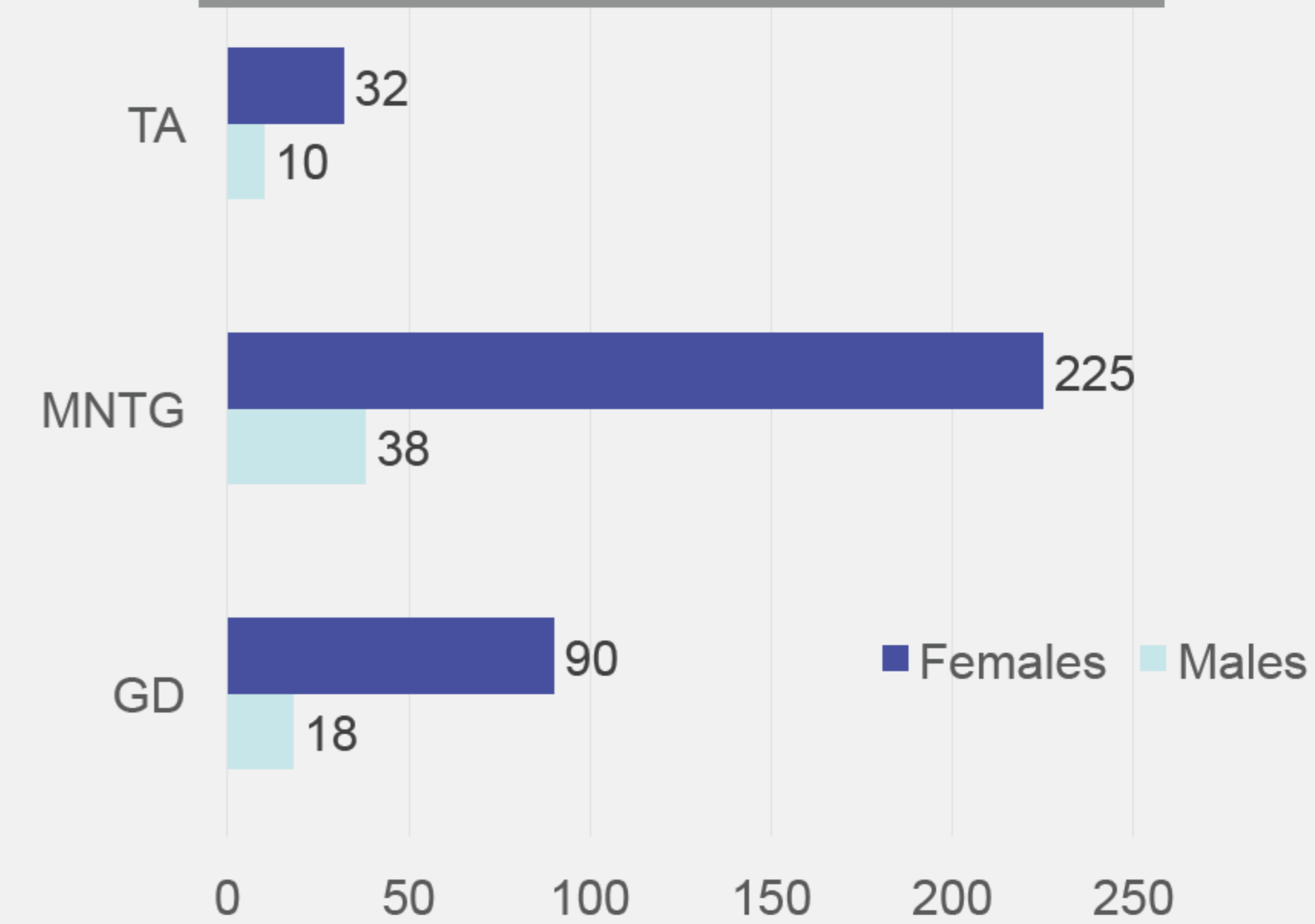


Mean age ± SD (Years) 56.2±15.1 53.1 ± 15.2

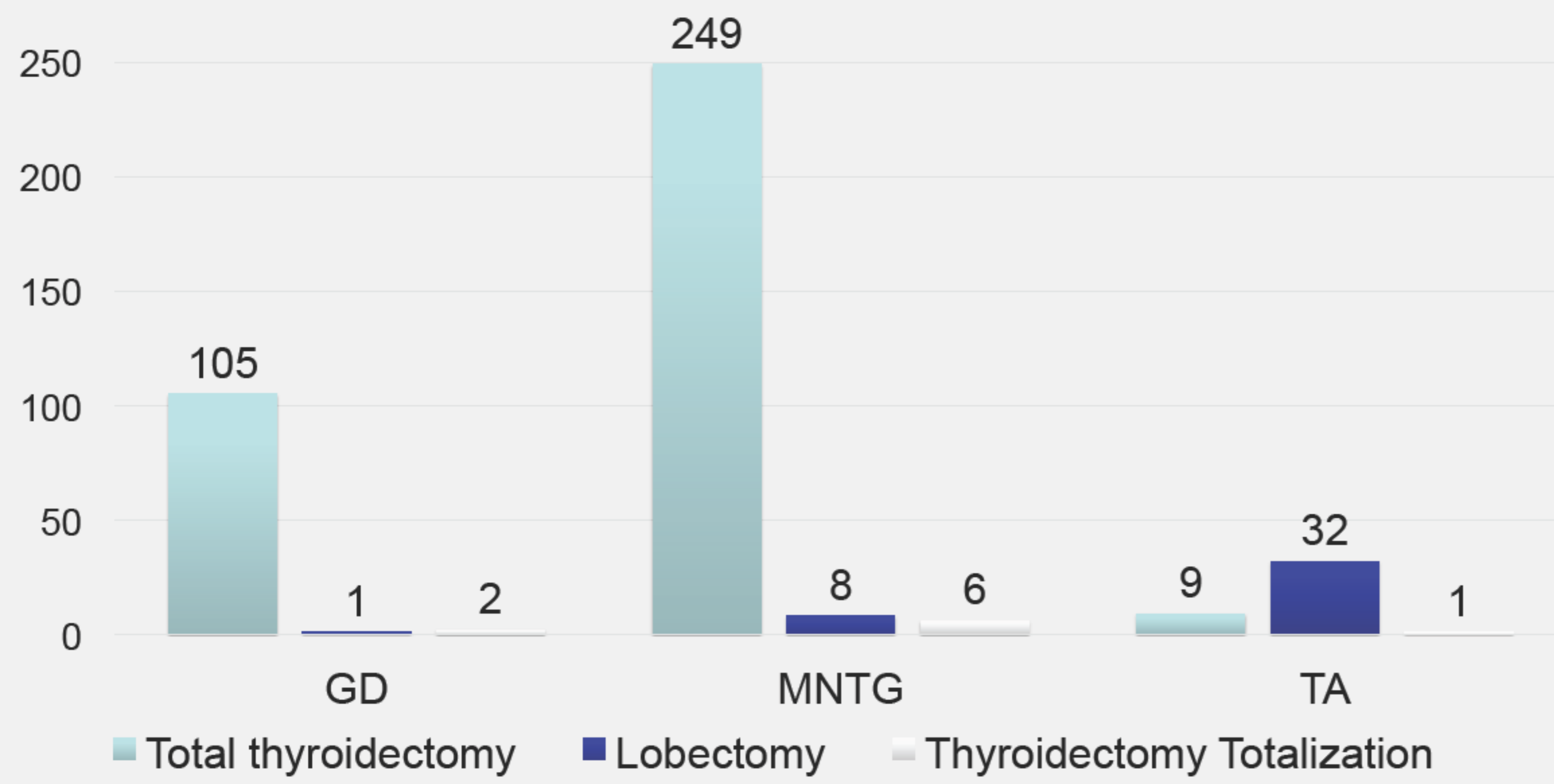
HYPERTHYROIDISM - CAUSES



SEX DISTRIBUTION



SURGERY TYPE



Mean follow up time: 41.9 ± 34.9 months

Global prevalence of Thyroid Cancer: 86/413 (20.8%)

Mean dimension: 1.01 ±1.31 cm (0.1 - 7cm)

Microcarcinomas: 69.8%

Incidental carcinomas: 81.4%

	GD (n=108)	MNTG (n=263)	TA (n= 42)	P
Mean age±SD (years) (Min-max)	43.9±13.2 (19-79)	58.0±13.9 (21-85)	50.5±16.2 (19-83)	< .001
Total Thyroidectomy, number (%)	105/108 (97.2%)	249/263 (94.7%)	9/42 (21.4%)	< .001
Cancer (%)	18/108 (16.7%)	64/263 (24.3%)	4/42 (9.5%)	0.059
Mean diameter of tumor± SD (Min-max) (cm)	0.69±0.64 (0.1-2.3)	1.13±1.47 (0.1-7.0)	0.6± 0.56 (0.1-1.4)	0.386
Microcarcinomas (diameter < 1cm)	14/18 (77.8%)	43/64 (67.2%)	3/4 (75%)	< 0.001
Incidental cancer (%)	13/18 (72.2%)	54/64 (84.4%)	3/4 (75%)	0.476

	GD (n=108)	MNTG (n=263)	TA (n= 42)	p
Stage at presentation				
I	15 (83.3%)	49 (76.6%)	4 (100%)	0.697
II	2 (11.1%)	3 (4.7%)	0	
III	1 (5.6%)	11 (17.2%)	0	
IV	0	1 (1.6%)	0	
Last Follow up				
Excellent response	14 (77.8%)	58 (90.6%)	4 (100%)	0.057
Indeterminate response	4 (22.2%)	6 (9.4%)	0	

GD: Graves Disease; MNTG: Multinodular Toxic Goiter; TA: Toxic Adenoma.

	GD (n=18)	MNTG (n=64)	TA (n=4)	p
Classic PTC	12 (66.7%)	33 (51.6%)	1(25%)	0.340
FV- PTC	4 (22.22%)	27 (42.2%)	3 (75%)	
Minimally invasive FTC	2 (11.1%)	2 (3.1%)	0	
Oncocytic FTC	0	2 (3.1%)	0	
Thyroiditis	4/18 (22.2%)	17/64(26.6%)	0	0.493
Lymphovascular invasion	1 /18 (5.6%)	8/64 (12.5%)	0	0.601
Extrathyroidal extension	1/18 (5.6%)	9/64 (14.1%)	0	0.463
Lymph node metastases	0	1/64 (1.6%)	0	0.840
Multifocality	2/18 (11.1%)	21/64 (32.8%)	1/4 (25%)	0.191

CONCLUSION

In our series, the prevalence of thyroid cancer was high (20.8%) but there were no significant differences when comparing the three groups of hyperthyroid patients in tumor size, incidental finding, presence of thyroiditis, extrathyroidal extension, lymphovascular invasion and lymph node metastasis. The great majority of these cancers were incidental findings. In the GD group we had significantly more microcarcinomas than in MNTG or TA.

References:

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