

Descriptive analysis of a series of 1567 thyroidectomies in Castilla La Mancha and its association with thyroid cancer

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OBJECTIVES

This is a retrospective, multicenter study within 8 sanitary areas of Castilla La Mancha, a region of Central Spain.

Objectives:

- To investigate clinical, analytical characteristics and diagnostics procedures related to thyroidectomies in our health area
- To determine clinical predictor of malignancy

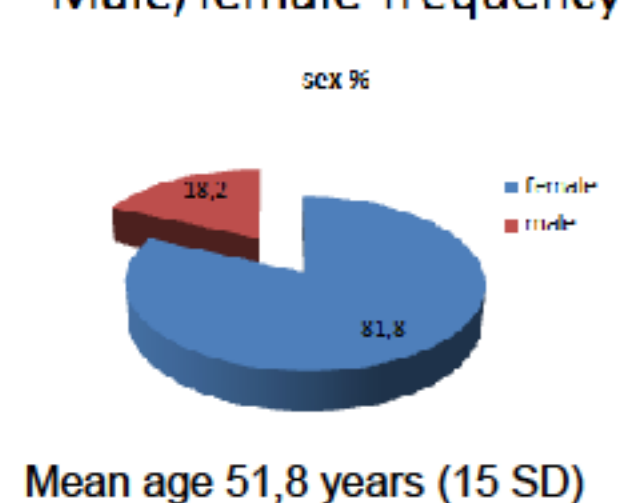
PATIENTS AND METHODS

The retrospective data collection was made in a database on-line. Patients undergoing thyroidectomy that was made between 2010-2013 were collected.

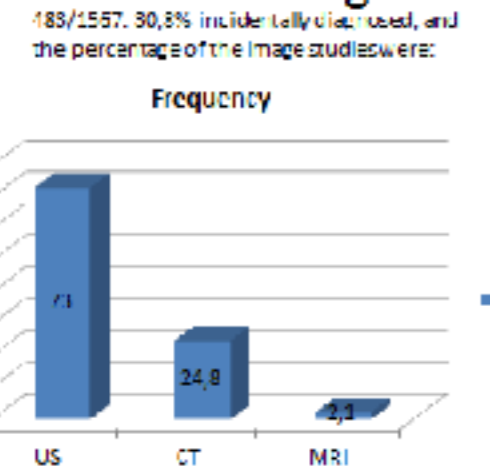
Registered variables were: sex, age at surgery, thyroid function, thyroid autoantibodies, family history of thyroid disease or thyroid cancer, cervical radiation, iodide intake, diagnostic procedures, reasons for thyroidectomy. In this work we do not describe sonographic features of the nodules. For statistical analysis SPSS (v20) was used

RESULTS

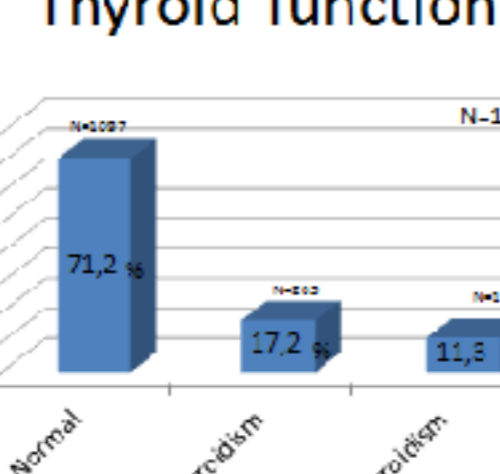
Male/female frequency



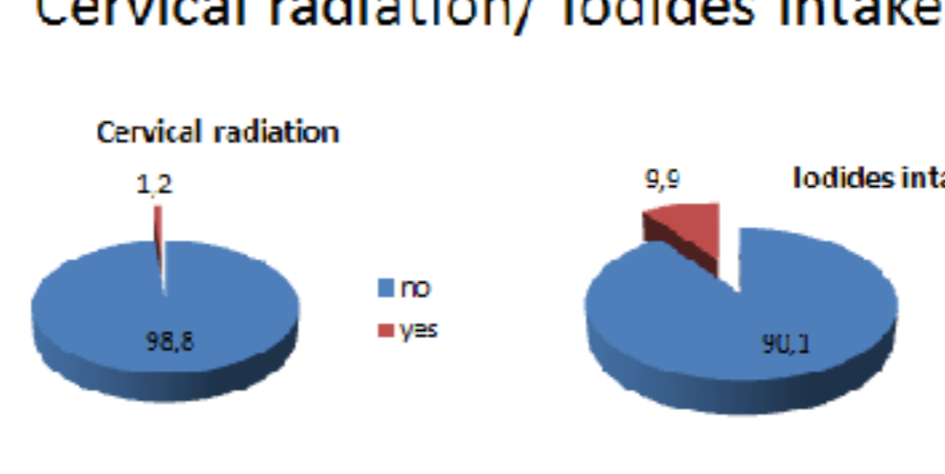
Incidental diagnosis



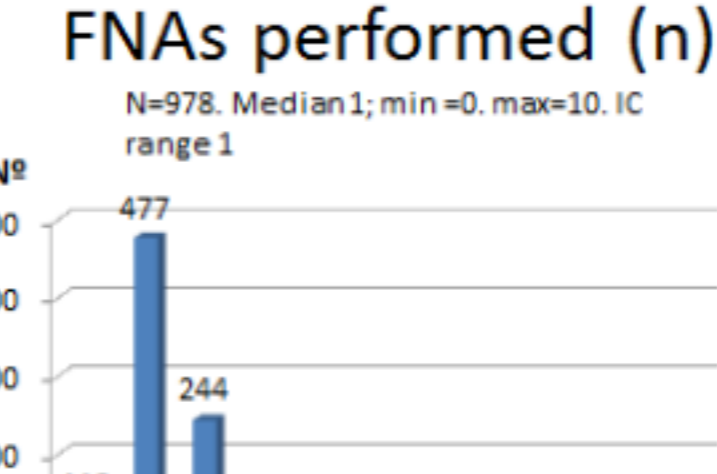
Thyroid function



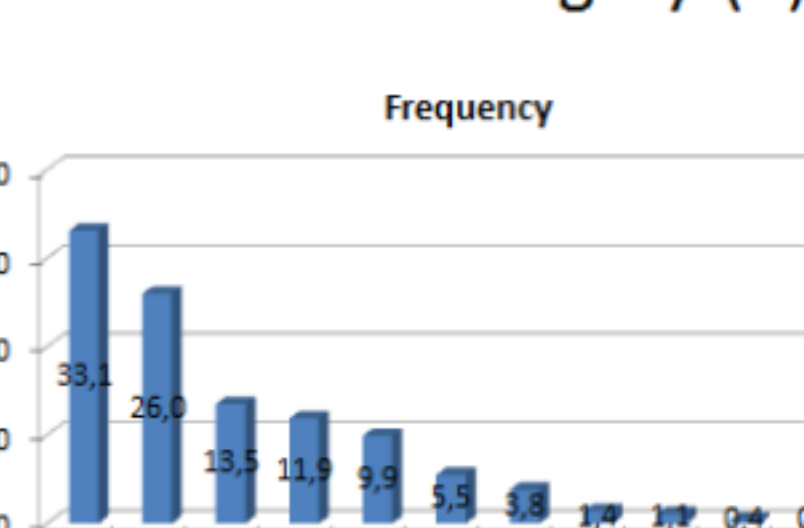
Cervical radiation/ iodides intake



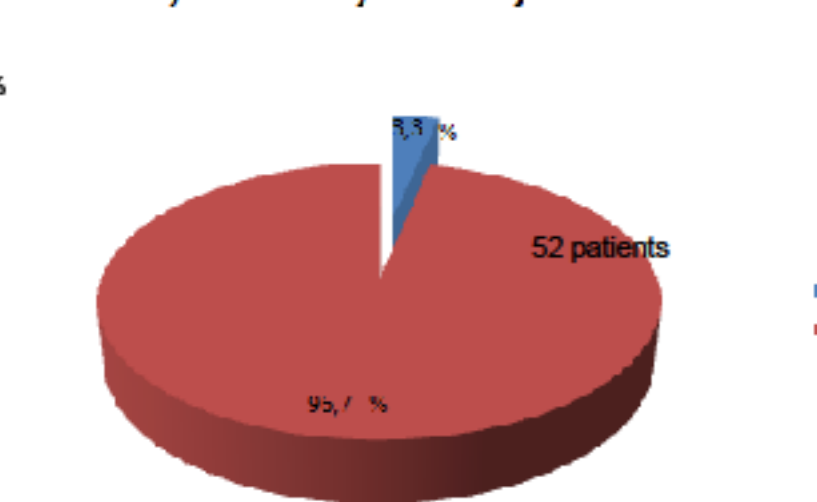
FNAs performed (n)



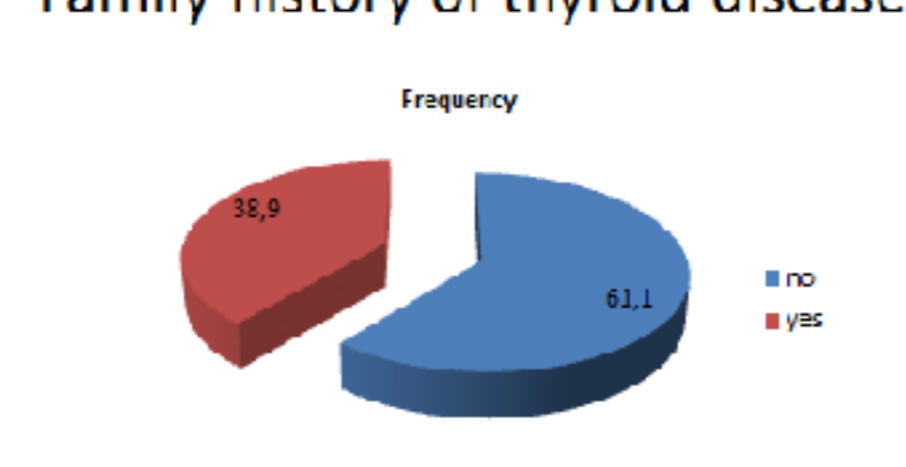
Reasons for surgery (1)



Family history of thyroid cancer



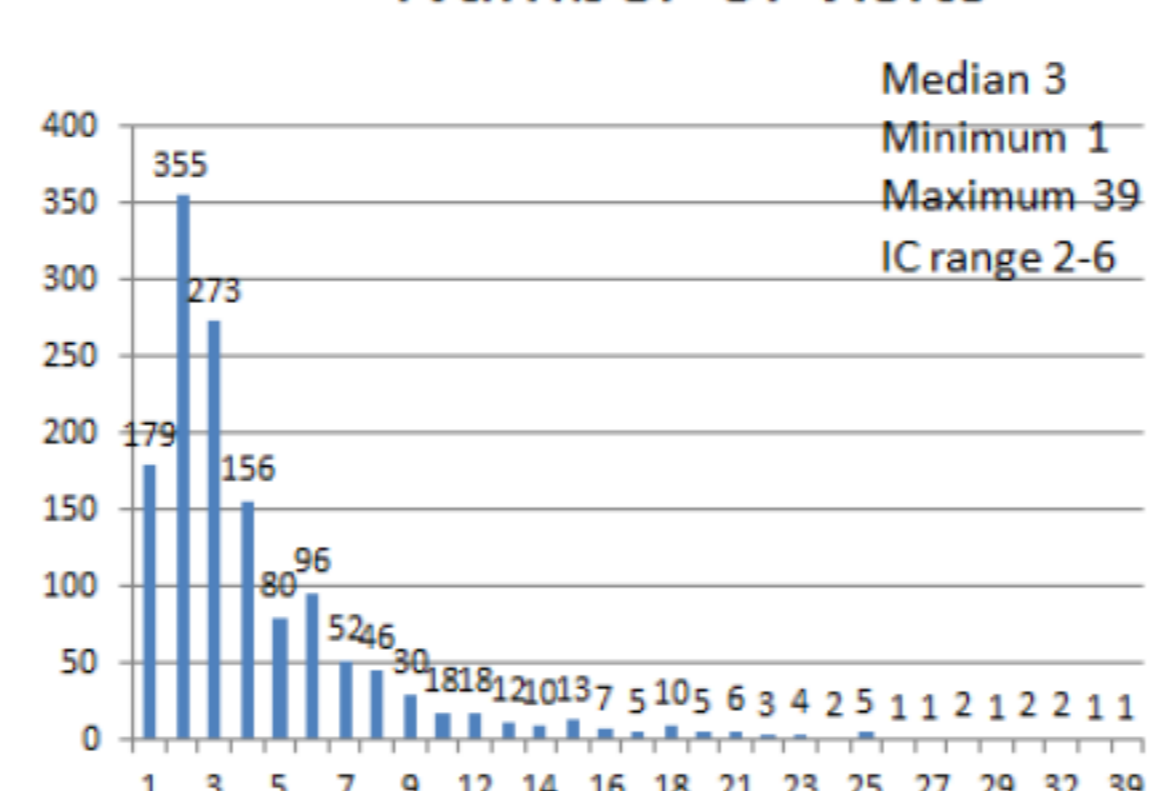
Family history of thyroid disease



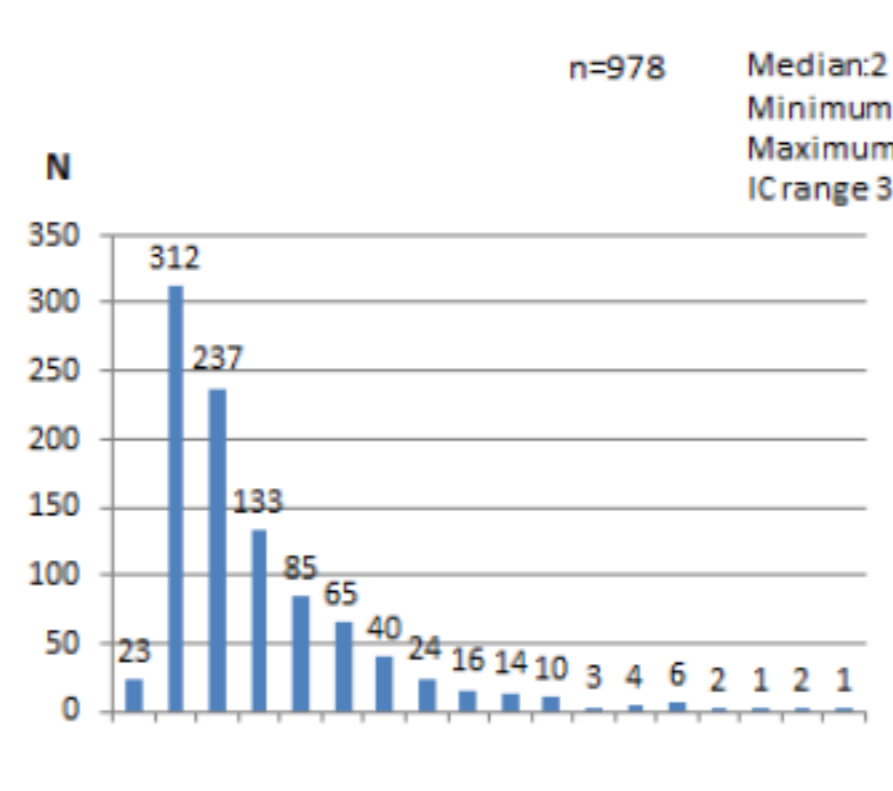
Clinical course (time) to first visit (n=1103)

	N (%)
Less than 1 year	591 (53,6%)
Between 1-10 years	412 (37,4%)
More than 10 years	100 (9,1%)

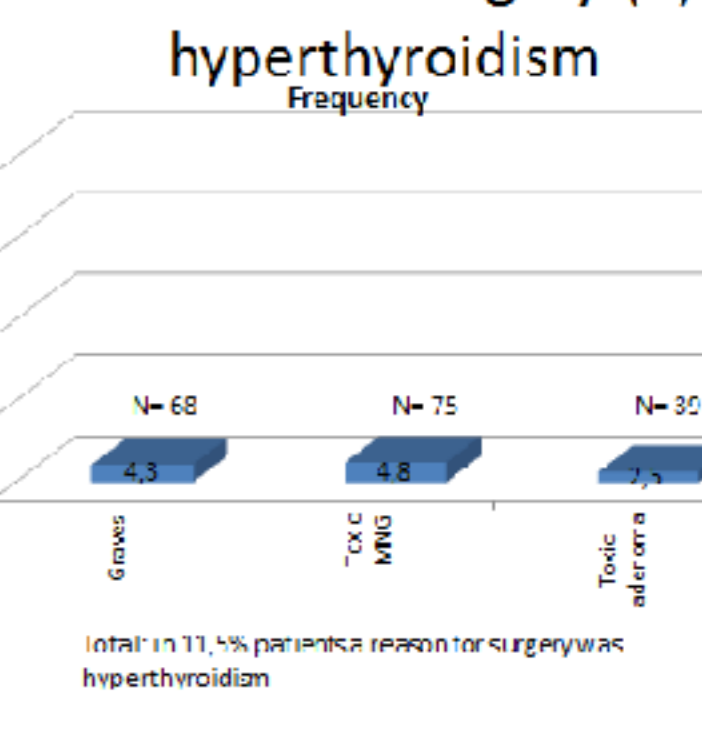
Number of visits



Number of US scans



Reasons for surgery (2)



Characteristics associated with thyroid carcinoma

Univariate analysis

	Malignant %	Malignant %	p
Age	<45 y: 34,8	≥45 y: 25	<0,0001
Sex	M: 35,1	F: 26,6	0,003
Family history thyroid Carcinoma	Yes: 55,8	No:27,2	<0,0001
Clinical course <1yr	Yes: 33,3	No:28,1	<0,0001
Hyperthyroidism	Yes:19,3	No:30,1	<0,0001
LT4 treatment (sustitutive)	Yes:37,1	No: 27,5	0,043
Cytology as indication	Yes: 52,7	No: 16	<0,0001
US as indication	Yes:54,7	No:24	<0,0001
Compressive symptoms	Yes: 11,3	No: 30,4	<0,0001
Size without symptoms	Yes:13	No:33,4	<0,0001
Hyperthyroidism (indication for surgery)	Yes:11	No:30,4	<0,0001

Multivariate analysis

	OR (IC95%)
Cytology as indication	3,15 (2,29-4,3) p<0,0001
U.S. findings as indication	2,46 (1,75-3,47) p<0,0001
Family history of Thyroid carcinoma	2,43 (1,23-4,81) p<0,010
Male sex	1,44 (1,02-2,04) p=0,037
No compressive symptoms	1,92 (1,15-3,33) p=0,017
No large nodule (asymptomatic)	1,67 (1,12-2,43) p=0,011
No incidental diagnosis	1,47 (1,03-2,08) p=0,03
No hyperthyroidism as indication	4 (1,82-9,1) p=0,001

CONCLUSIONS

Clinical variables may help to indicate increased risk of malignancy in thyroid nodular disease. In our work the value of cytology as surgical indication is still a valid tool.

Nodule size it's not a good predictor for thyroid cancer, in recent years it seems that younger patients with smaller thyroid nodules have been more frequently diagnosed. For these patients the role of the ultrasound is essential. In our series, patients with large nodules or larger goiters with compressive symptoms show a lower risk of malignancy.