

# RISE IN INCIDENCE OF DIFFERENTIATED THYROID CANCER IN THE SOUTH OF SPAIN

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**Background:** Recent studies have shown that the incidence of differentiated thyroid cancer (DTC) is increasing.

**Objective:** Evaluate the incidence of DCT in a center of the south of Spain for the last 15 years (2000-2014) and analyze the clinical and morphological factors related to DTC.

**Methods:** We reviewed the series of patients undergoing thyroid surgery at our Hospital over a 15-year period and identified patients with DTC. Patients were divided in three periods: 2000-2004, 2005-2009 and 2010-2014 and incidence rates were calculated. The variables gathered were age, sex, date of diagnosis, clinical presentation, hormonal status and cytology, size, morphology and extension of the tumor.

**Results:** Results are expressed in tables 1 and 2 and in graphic 1.

**Table 1. DTC incidence in analyzed periods and annual percentage change**

Period	2000-2004 (n: 48)	2005-2009 (n: 71)	2010-2014 (n: 105)	APC
Total <sup>1</sup> (IC 95%)	3.69 (3.67-3.70)	4.84 (4.82-4.85)	6.82 (6.81-6.83)	5.20 (5.19-5.21)
Men	1.07 (1.05-1.07)	1.67 (1.65-1.68)	3.32 (3.30-3.34)	2.07 (2.06-2.07)
Women	6.35 (6.33-6.37)	7.90 (7.88-7.92)	10.17 (10.14-10.19)	8.26 (8.25-8.27)

<sup>1</sup> DTC cases /100.000 habitants/ year; APC: Annual percentage change.

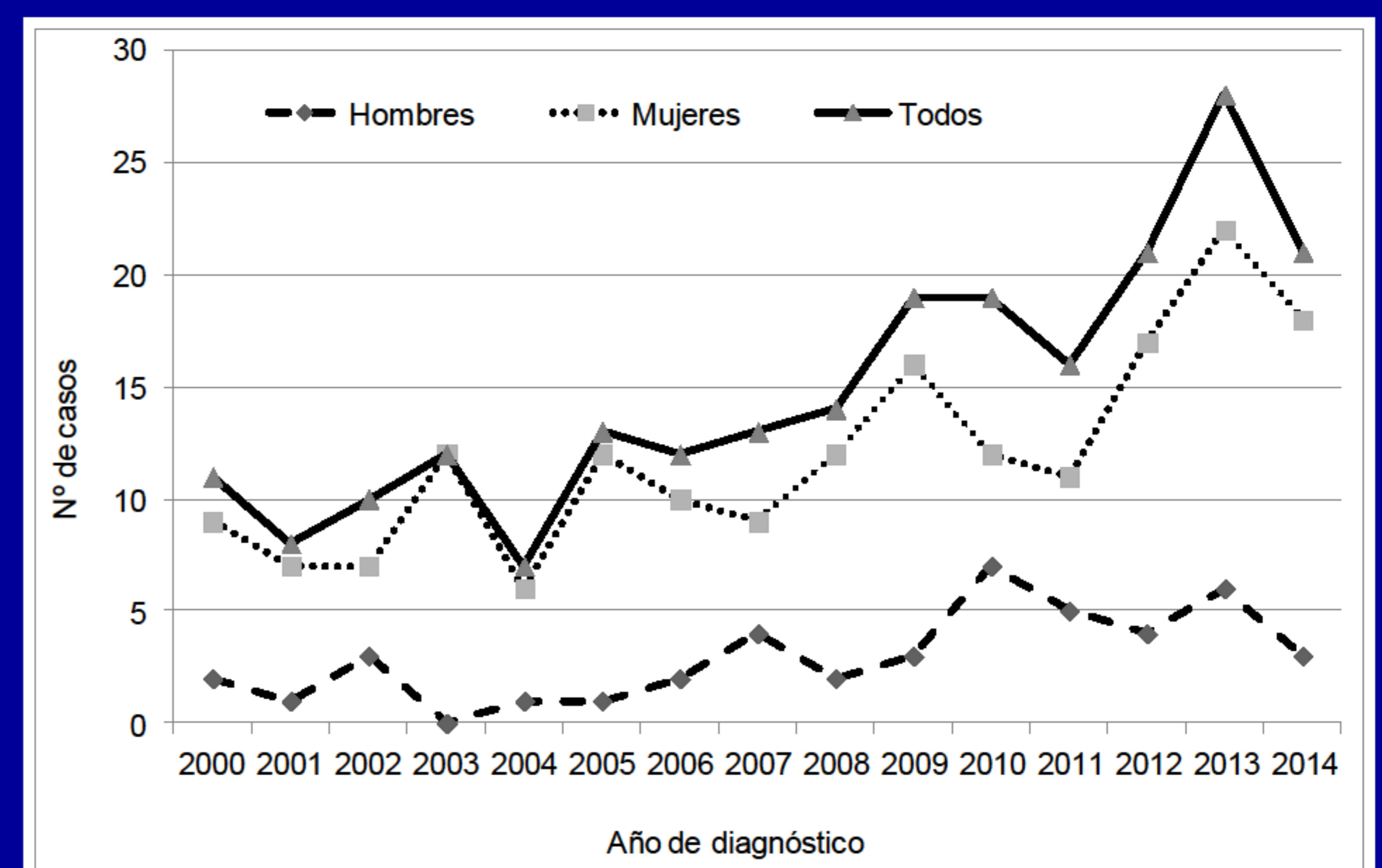
**Table 2. Characteristics of DTC in analyzed period**

Período	2000-2004	2005-2009	2010-2014	P
Thyroidectomies (n)	491	499	615	-
DTC cases	48	71	105	
Men (%)	7 (14.6%)	12 (19.6%)	25 (23.8%)	0.321
Women (%)	41 (85.4%)	59 (80.4%)	80 (76.2%)	
Mean age (years)	45.4 ± 13.6	47.8 ± 14.5	45.9 ± 15.0	
Men	53.3 ± 17.1	47.9 ± 14.7	44.8 ± 16.9	0.595
Women	44.1 12.8	47.9 14.6	46.2 14.5	
Men/Women relation	5.8	4.9	3.2	0.321
Type of DTC	48	71	105	
Papillary (%)	43 (89.6%)	67 (94.3%)	93 (88.6%)	0.416
Follicular (%)	5 (10.4%)	4 (5.7%)	12 (11.4%)	
Mean DTC size (mm)	25.5 ± 19.6	15.6 ± 11.4	20.2 ± 16.0	0.007 <sup>1</sup>
Microcarcinomas (%)	10 (20.8%)	26 (36.6%)	30 (28.6%)	0.065
PTC non-MPTC/MPTC (%)	3.1	1.6	2.1	0.291
Thyroiditis (%)	10 (20.8%)	14 (19.7%)	29 (27.6%)	0.513
Multifocality (%)	16 (33.3%)	22 (30.9%)	39 (37.1%)	0.751
Bilaterality (%)	11 (22.9%)	17 (23.9%)	15 (14.3%)	0.171
Lymph node extension (%)	12 (25.0%)	17 (23.9%)	21 (20.0%)	0.581
Distance metastases (%)	1 (2.1%)	0 (0.0%)	5 (4.7%)	0.156

PTC: Pappillary hhyroid carcinoma; MPTC: Micropappillary hhyroid carcinoma.

<sup>1</sup> p < 0,05 in 2000-2004 and 2010-2014 periods vs 2005-2009 period.

**Graphic 1. DTC in patients undergoing thyroid surgery in our Hospital during the period 2000-2014**



**Conclusions:** We report a similar rise in the incidence of DTC in the south of Spain to the overall reported in the international literature.