

# HYPERTHYROIDISM IN INTERNAL MEDICINE SERVICES IN SPAIN (2005-2012)

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## INTRODUCTION

The prevalence of hyperthyroidism in patients admitted in Internal Medicine at Spanish hospitals is 0.8%.

Proper diagnosis and management of hyperthyroidism in these patients is still a challenge and therefore, the analyses of the factors involved in the prognosis and survival is of interest.

## MATERIAL AND METHODS

Data from the minimum-data-set of Spanish National health System were collected during 2005-2012 from discharged patients of Internal Medicine with an hyperthyroidism diagnosis. A bivariate analysis was performed in order to detect differences in the mortality rate, median age, median hospital stay, readmission rate and comorbidities among hyperthyroid and non hyperthyroid patients. A logistic regression analysis was performed using as dependent variable in-hospital mortality and sex, mean age, adjusted comorbidities measured by the Charlson's index and hyperthyroidism as independent variable. Chi square and Student-T test were performed. Data analysis used SPSS22 software.

## RESULTS

**TABLE 1:** Prevalence of hyperthyroidism in Internal Medicine hospital inpatients

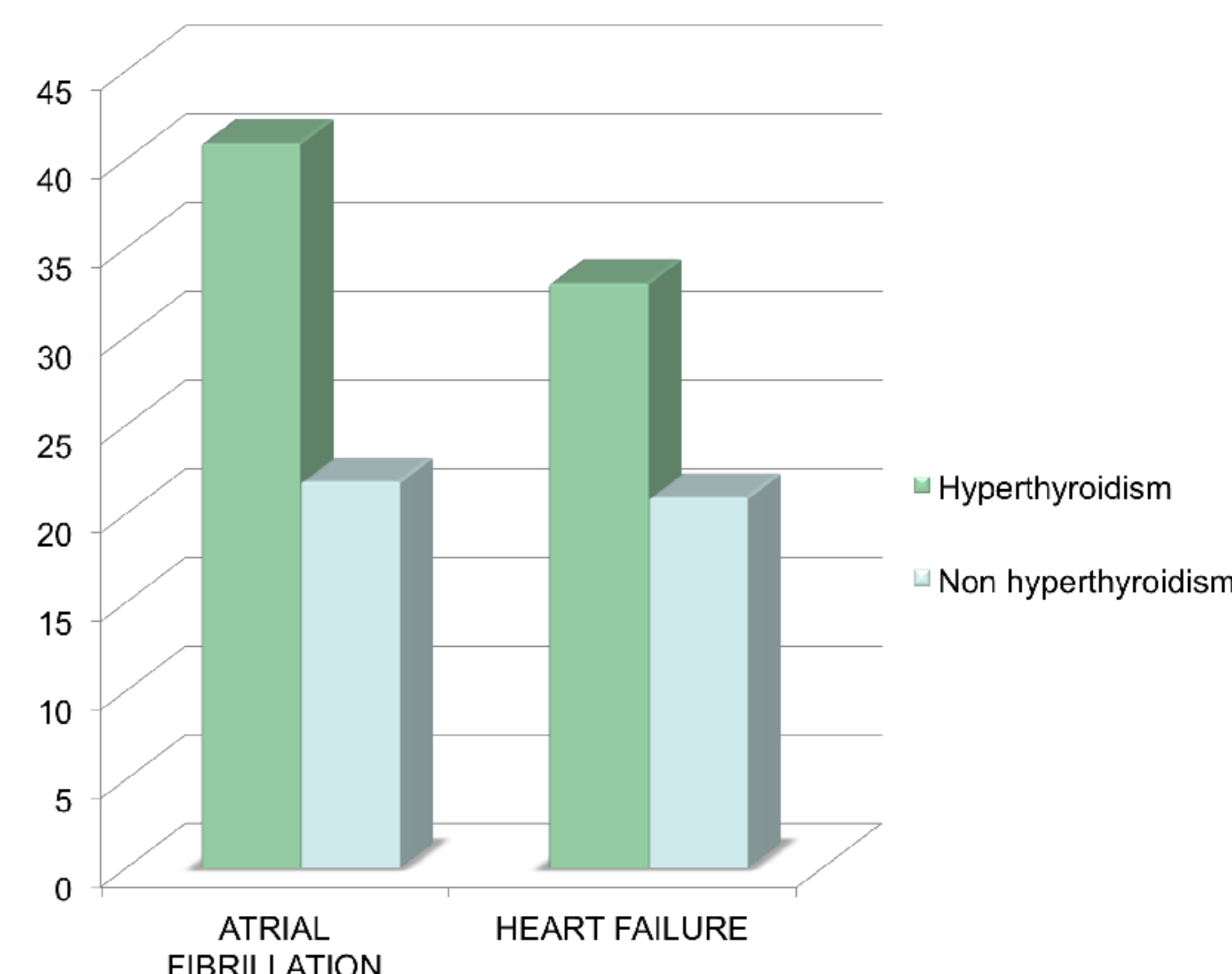
Hyperthyroidism	Non Hyperthyroidism	TOTAL
32,515	3,952,018	3,984,533

**Prevalence of encoded hyperthyroidism: 0.8 % in hospital inpatients**

**TABLE 2:** Baseline characteristics and comorbidities of hyperthyroid and non hyperthyroid patients

	Hyperthyroidism	Non Hyperthyroidism	p
PATIENTS	32,515	3,952,018	
Age (years)	77 (SD 12.71)	72 (SD 17.06)	< 0.001
Sex (% women)	66	47.1	< 0.001
Hypertension (%)	42.2	37	< 0.001
Diabetes Mellitus (%)	30.6	27.6	< 0.001
Dyslipidemia (%)	16.7	16.5	0.23
Smoking (%)	6.5	11.1	< 0.001
Obesity (%)	7.6	7.7	0.545
Alcoholism (%)	1.1	2.4	< 0.001
<b>Atrial fibrillation (%)</b>	<b>40.9</b>	<b>21.8</b>	<b>&lt; 0.001</b>
<b>Congestive heart failure (%)</b>	<b>33</b>	<b>20.9</b>	<b>&lt; 0.001</b>
Peripheral vascular disease (%)	5.6	5.5	0.4
Coronary disease (%)	7.6	8.5	< 0.001
Cerebrovascular disease (%)	10.5	11.2	< 0.001
Chronic renal disease (%)	13.7	11.7	< 0.001
Liver disease (%)	2.7	5.5	< 0.001
Chronic pulmonary disease (%)	32.1	25.3	< 0.001
Dementia (%)	6	6.1	0.851
Neoplasia (%)	6.8	11	< 0.001

**FIGURE 1:**



Atrial fibrillation and congestive heart failure were more common in hyperthyroid versus non hyperthyroid patients (figure 1).

### MORTALITY RATE:

→The mortality rate in hyperthyroid patients was lower than in non hyperthyroid patients (8% vs 10%; p < 0.001).

→In the logistic regression analyses adjusted by age, sex and Charlson's comorbidity index, hyperthyroidism was found to be an independent factor to prevent mortality in inpatients OR 0.69 (IC: 0.66-0.74; p < 0.0001).

## CONCLUSIONS

Hyperthyroid patients admitted to Internal Medicine wards have a lower mortality than non hyperthyroid patients. The frequency of women, atrial fibrillation and heart failure was higher in the hyperthyroid group. It is still unknown why hyperthyroid patients show lower mortality during admission. Perhaps other clinical and therapeutical factors, which have not been assessed through this retrospective study, have been involved with the hospital prognosis.

