ANALYSIS OF THYROID CANCER MORTALITY BETWEEN 1975 AND 2011 IN ANDALUSIA, SPAIN

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INTRODUCTION AND OBJECTIVES

The incidence of Thyroid Cancer (TC) is low, but rising over time. Some studies point to a possible increase in mortality rate (MR) from this cancer in certain areas of Spain and Andalusia. Our purpose was to analyze the TC mortality in Andalusia and study how it has changed in the last years. We also analyzed differences by age, sex and geographic area.

MATERIAL AND METHODS

- All deaths from Thyroid Cancer were collected between January 1, 1975 and December 31, 2011. These deaths were classified by age, sex and province. Data was obtained from the mortality register of The Andalusian Statistics and Cartography Institute and from The Regional Ministry of Health. As a population denominators we used the data provided by the National Institute of Statistics (July 1st of each year).
- We calculated specific MR standardized by the direct method (standardized per 100000 population, sex and age), and by the indirect method (SMR or Standardized Mortality Ratio) for all Andalusia and for each province.

RESULTS

Table 1. Deaths from Thyroid Cancer in Andalusia (1975-2011)

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<tr>
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<th>Total (n)</th>
<th>Women</th>
<th>Men</th>
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<tr>
<td></td>
<td>1199</td>
<td>774</td>
<td>425</td>
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<td>(62.1%)</td>
<td>(37.9%)</td>
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Figure 1. Standardized Mortality Rate from TC in Andalusia (Smoothed)

- In these 37 years the MR has not changed significantly.
- Women: 0.5-1 deaths per 100000 population/year.
- Men: 0.4-0.7 deaths per 100000 population/year.

Figure 2. Mortality Rate by period of time, age and sex

- The MR increases exponentially with age (from 0.02-0.1 deaths per 100000 population/year at thirties to 2-5 deaths at eighties).
- In the last period of time we can see a decrease mortality in men under 50 years.

Figure 3. Comparison of mortality by age and sex: 1975-2011

- Until 40 years old the mortality is higher in men.
- From 40 to 70 years MR are comparable between genders.
- The Mortality Rate is higher in women above 70 years.

CONCLUSIONS

- Mortality from Thyroid Cancer in Andalusia has remained stable over the last 37 years. Overall mortality is higher in women than in men, but if we consider groups of age, we find a higher mortality rate in men over 40s. It is specifically in this group where we can see a drop in mortality in the last period of time (ten years).
- There are differences in mortality in the Andalusian provinces. It is necessary to analyze the factors involved.