



LONG TERM FOLLOW UP OF DIFFERENTIATED THYROID CARCINOMA IN A SPECIALIZED ONCOLOGICAL CENTER: IMPACT OF RADIOIODINE THERAPY



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INTRODUCTION

Thyroid cancer is the most frequent endocrine malignancy, representing the 4th most common neoplasia in Mexico. Differentiated thyroid cancer (DTC) has generally a good overall prognosis, with a very low cancer specific mortality (<5% at 10 years).

OBJECTIVES

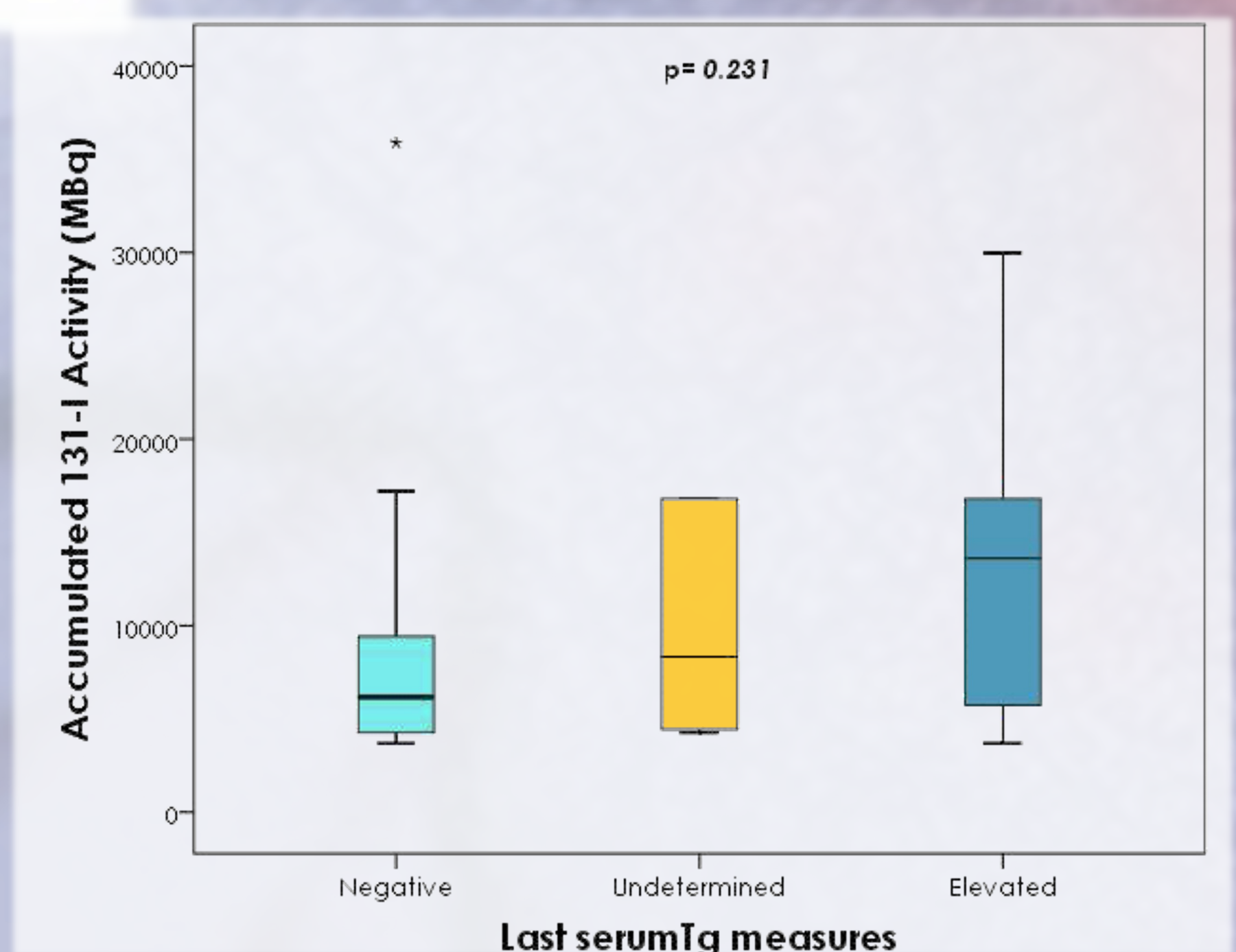
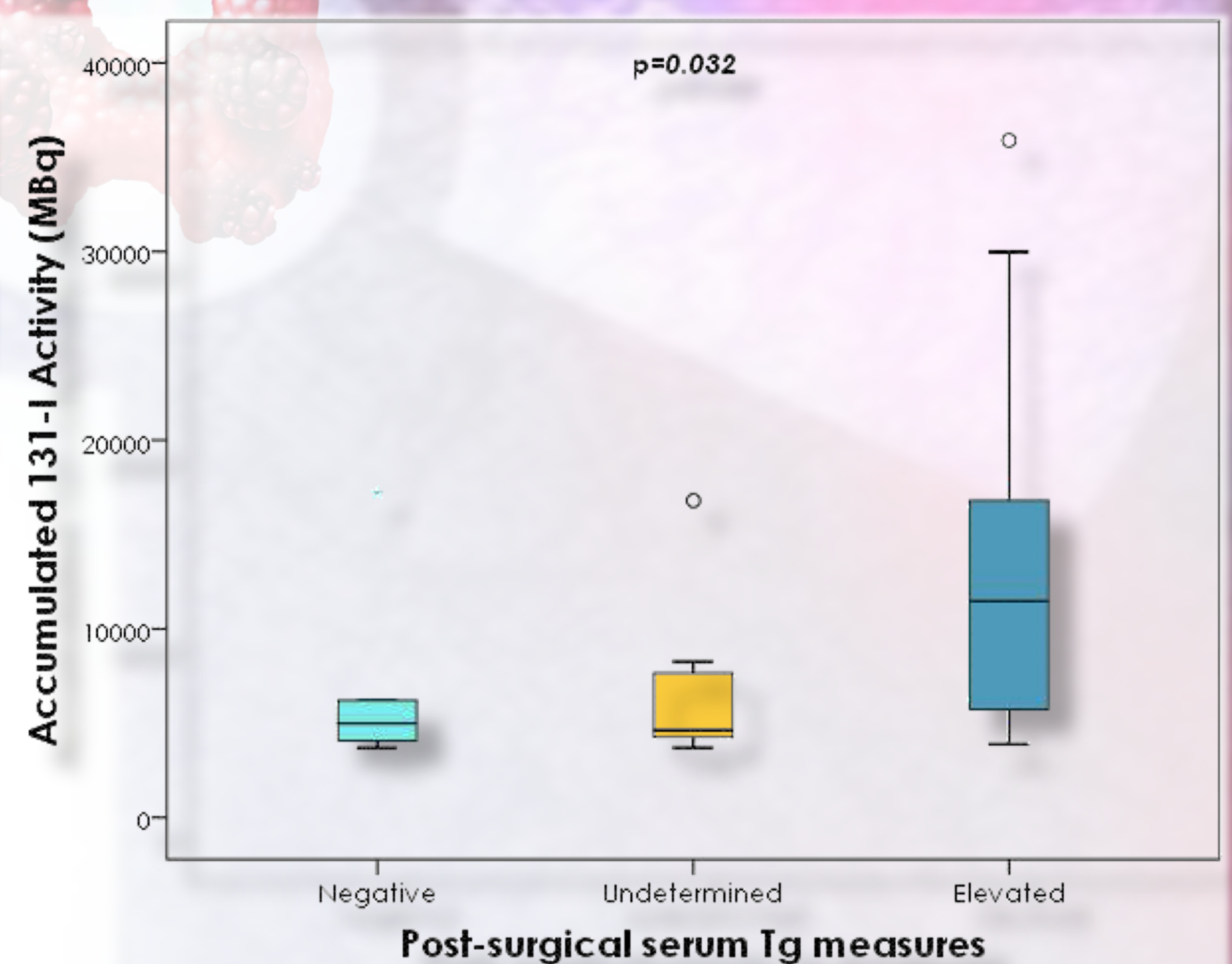
Main objective of this study is to assess the impact of radioiodine therapy in overall survival (OS) and disease-free survival (DFS) in patients with DTC, and whether accumulated ¹³¹I activity (RAA) is associated with long term follow up thyroglobulin (Tg) levels. Secondary objective was to establish if histopathological risk factors have a statistically significant association with recurrent, persistent, and metastatic disease.

METHODS

We conducted a single center (Instituto Nacional de Cancerología, México), non-randomized, ambispective cohort study, where fifty patients with DTC were followed up through 15 years since diagnosis, from January 2007 to February 2023. SPSS V24.0 was used for statistical analysis. X² test was used for parametric data, and Kruskal Wallis test for non-parametric data

RESULTS

- 28% out of the 50 patients had died at the end of the follow-up period.
- Mean OS was 11.5 years, and DFS was 4.3 years. In the overall survival analysis, patients with RAA between 5,550-<11,100 MBq and those that received ≥11,100 MBq had an OS of 12.5 years and 9.7 years, respectively.
- Patients were divided according to RAA and serum Tg measures at two points in time: post-surgical and last sample taken, which was further classified into negative, undetermined and elevated: median RAA was 4,995 MBq, 4,625 MBq and 11,470 for each post-surgical Tg group respectively (p= 0.036); while RAA regarding last Tg measures was 6,160.5 MBq, 8,325 MBq and 13,616 MBq (p = 0.231).
- Histopathological risk factors (extrathyroid extension, incomplete resection, lymphovascular and perineural invasion, and osseous metaplasia) had a higher frequency association with persistent disease rather than recurrent or metastatic pathology (p= 0.087, 0.989 and 0.175 respectively).



CONCLUSION

- Mexican population has higher death rates as well as lower OS and DFS in patients with DTC than those currently reported worldwide.
- A ≥11,100 MBq accumulated ¹³¹I activity was linked to a significantly lower than mean OS, possibly due to distant metastatic disease.
- RAA has statistically significant difference according to post-surgical Tg measure.
- Histopathological risk factors have higher frequency association in our population not with carcinoma recurrence as stated in some international guidelines, but rather with persistent disease overtime.

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