



RISK FACTORS FOR RECURRENCE IN FILIPINOS WITH WELL-DIFFERENTIATED THYROID CANCER

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BACKGROUND

The incidence of recurrent well-differentiated thyroid cancer (WDTC) continues to rise as better imaging test and more sensitive monitoring with serum thyroglobulin improves disease surveillance. Despite the excellent prognosis of WDTC, increasing morbidity from recurrent diseases continues to affect long-term outcome of most patients leading to higher medical cost and poorer quality of life. Filipino ethnicity in particular was reported to have the highest incidence of thyroid cancer with a highly aggressive and recurrent nature. Several studies have tried to identify risk factors that predict WDTC recurrence. This paper aims to determine the recurrence rates and identify associated risk factors for recurrence among Filipinos with WDTC.

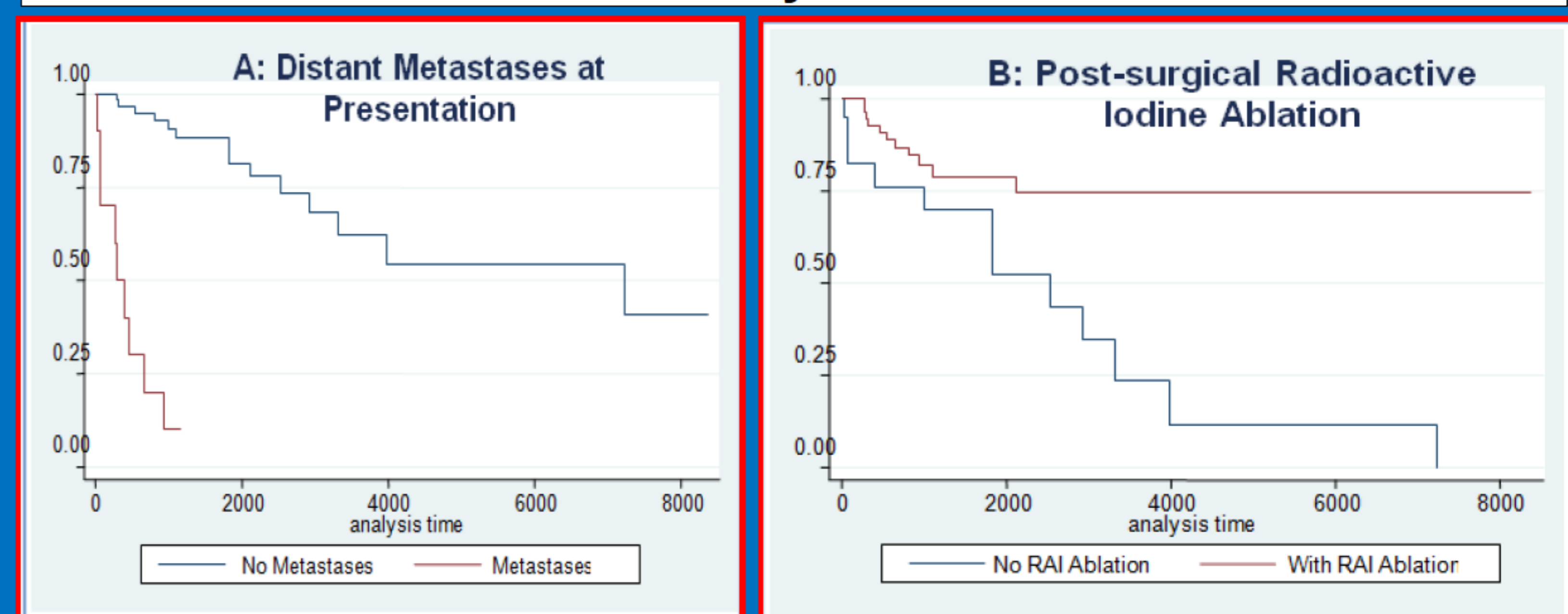
METHODOLOGY

This is a retrospective cohort study of 723 patients diagnosed with WDTC (649 Papillary and 79 Follicular) seen at the Philippine General Hospital (PGH) between 1990 and 2014. Study population was divided into groups based on presence or absence of recurrence. Disease recurrence was considered if the patient had clinical, biochemical or radiologic evidence of cancer remnants after surgery. Multivariable logistic regression analyses were then used to determine significant predictors of tumor recurrence.

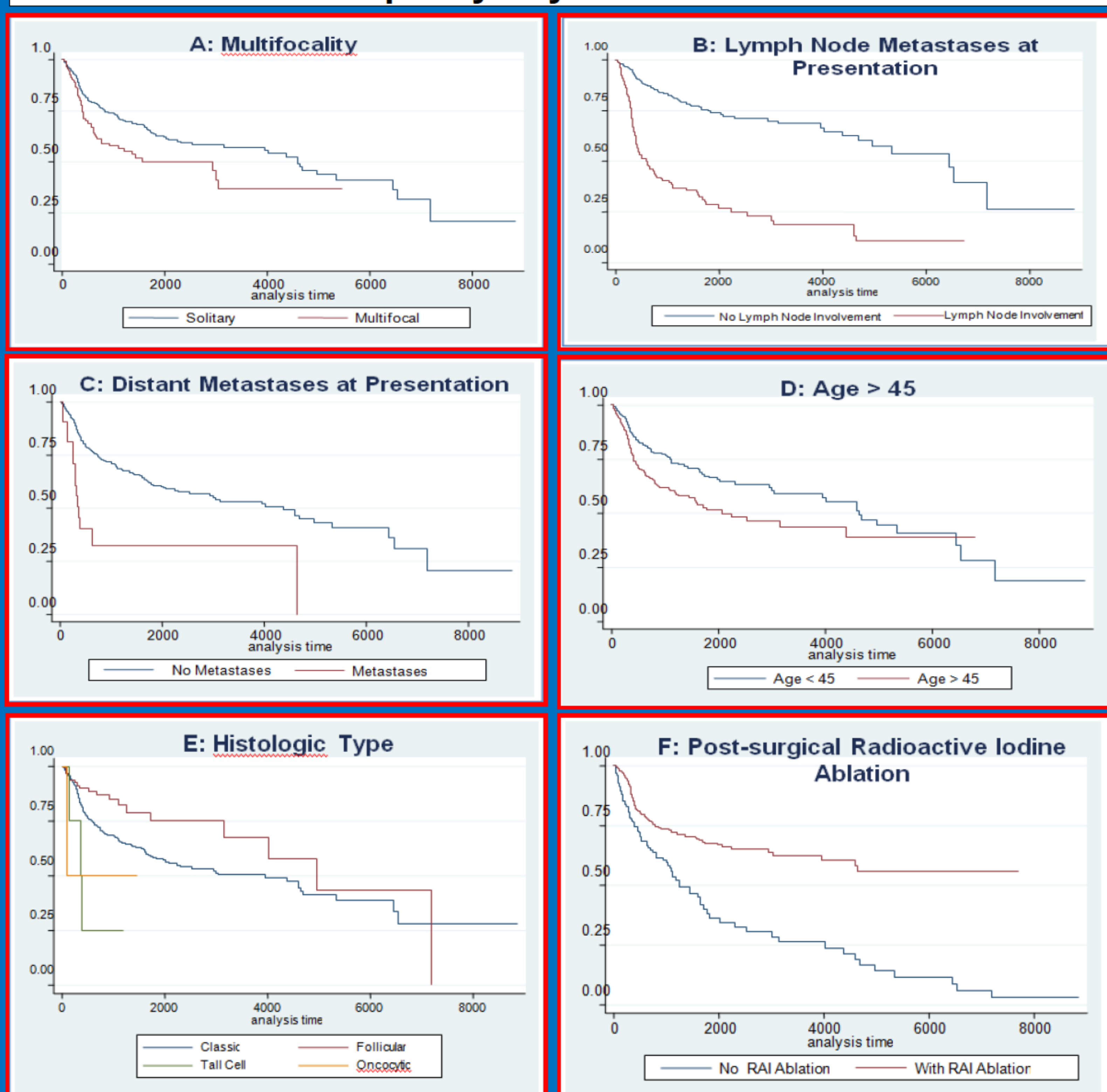
Baseline Characteristics of Filipino Patients with Recurrent Well-differentiated Thyroid Cancer

Characteristic	Papillary Thyroid Cancer (n= 214)	Follicular Thyroid Cancer (n= 23)
Mean Age (years)	44.3 ± 13.4	48.9 ± 11.4
Male Percentage	20.1	13.0
Lymph Node Involvement at Presentation	85 (39.7)	6 (26.1)
Tumor Size (cm)	3.3 ± 2.0	3.27 ± 2.0
Median Interval of Recurrence from Thyroidectomy (months)	13	26
Median Follow-up Duration (months)	53	83
Repeated Surgery	47 (22.0)	6 (26.1)
Repeated Radioactive Iodine Therapy	110 (51.4)	12 (52.2)
External Beam Radiotherapy	7 (3.3)	5 (21.7)
Chemotherapy	1 (0.4)	0
Mortality	2 (0.9)	2 (8.7)

Kaplan-Meier Disease-free Estimate Curves of Significant Factors for Follicular Thyroid Cancer Recurrence



Kaplan-Meier Disease-free Estimate Curves of Significant Factors for Papillary Thyroid Cancer Recurrence



Comparison of Multivariate Analyses of Recurrence in Well-differentiated Thyroid Cancer Across Different International Studies

Factors Identified	Our Data	Palme et.al. [16]	Baek et.al. [7]	Kim et.al. [17]	Ito et.al. [18]
Age	✓	✗	✗	✗	✓
Male Sex	✗	✓	✗	✓	✓
Tumor Size	✗	✓	✗	✗	✓
Nodal Metastases	✓	✓	✓	✓	✓
Distant Metastases	✓	✓	N/A	✓	N/A
Histologic Type	✓	✗	N/A	✓	N/A
Multifocality	✓	✗	✗	✗	N/A
Incomplete Thyroidectomy	✗	✓	✗	✗	N/A
Post-surgical RAI Therapy	✓	✗	N/A	N/A	N/A

CONCLUSION

- Lymph node metastases at presentation was the most important predictor of recurrence in PTC while it was distant metastases at presentation for FTC recurrence.
- Identified recurrence factors for WDTC among Filipinos in this study will be helpful in guiding the intensity of their treatment strategies and long-term thyroid cancer surveillance aimed to reduce future morbidity and mortality.