

The Simultaneous Occurrence of Papillary Thyroid Cancer and Follicular Thyroid Cancer: a Population Based; Propensity-Score Matched Analysis

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Introduction

Multiple primary cancer is a rare entity and is characterized by the presence of two or more distinct cancers within patients. However not much is known when both types of papillary thyroid cancer (PTC) and follicular thyroid cancer (FTC) occur simultaneously in the same patient (co-FTC/PTC).

Objectives

- To explore disparities in tumor characteristics.
- To assess potential differences in survival rates in such cases.

Methods

An observational study was performed on PTC and FTC patients using Surveillance Epidemiology and End Results data (2000-2020). Propensity score matching (PSM) was based on age, sex, race, and histological subtype. Overall disease-specific survival was calculated.

Results

Table 1. Baseline patient characteristics

| Variables | FTC (n=75) | Co-FTC/PTC (n=25) | PTC (n=75) | P-value FTC vs FTC/PTC | P-value PTC vs FTC/PTC |
|------------------|------------|-------------------|------------|------------------------|------------------------|
| Age (years) | 54 (44-67) | 56 (44-66) | 62 (44-68) | 0.957 | 0.376 |
| Female sex (n,%) | 54 (66.7) | 18 (72.0) | 48 (64) | 0.807 | 0.623 |

Table 2. Tumor characteristics

| Variables | FTC (n=75) | Co-FTC (n=25) | P-value | PTC (n=75) | Co-PTC (n=25) | P-value |
|--------------------------|------------|---------------|---------|------------|---------------|--------------|
| Extrathyroidal extension | 9 (16.4) | 4 (21.1) | 0.729 | 11 (22.9) | 2 (9.1) | 0.204 |
| Mutlifocality | 8 (18.4) | 3 (17.7) | >0.999 | 22 (52.4) | 3 (18.8) | 0.036 |
| Positive lymph nodes | 1 (2.6) | 1 (7.1) | 0.462 | 8 (19.5) | 0 (0.0) | 0.093 |
| Distant metastasis | 3 (7.0) | 1 (6.7) | >0.999 | 1 (2.6) | 1 (6.7) | 0.482 |

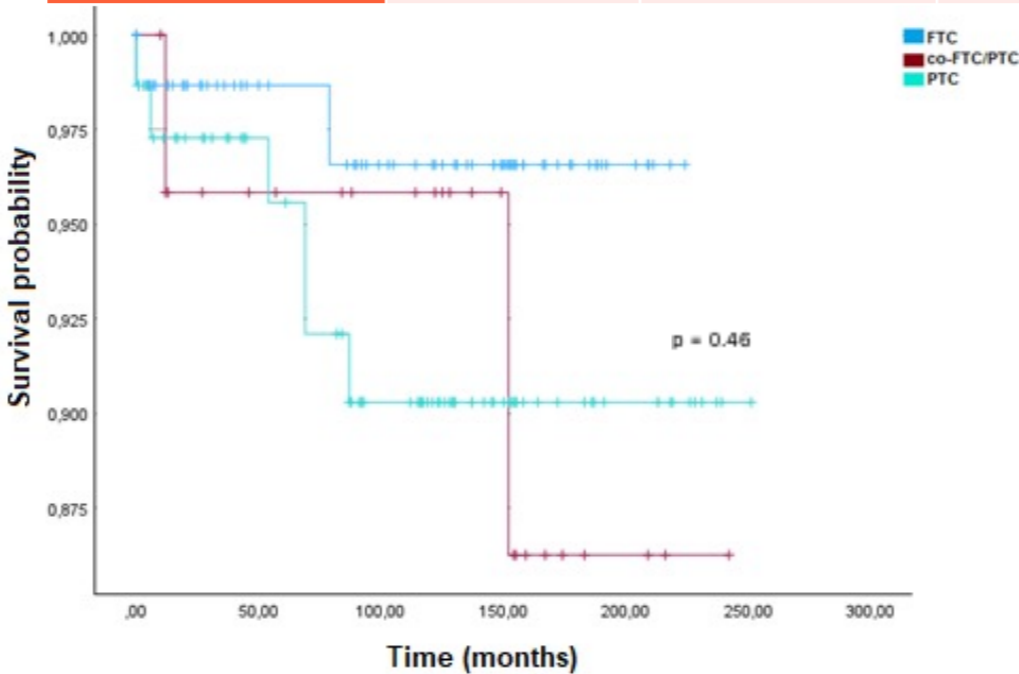


Fig. 1 Disease-specific survival of FTC, co-FTC/PTC and PTC

Conclusion

- The simultaneous presence of both PTC and FTC is rare.
- No differences tumor characteristics between the cohorts
- The concurrent occurrence of these tumors does not appear to impact overall disease-specific survival.
- More research is warranted, emphasizing the need for careful consideration when determining the appropriate surgical approach for patients with concomitant PTC and FTC.