Differentiated thyroid carcinoma: a 5-years survival study at a referral hospital in Rio de Janeiro

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BACKGROUND

Although the prognosis of differentiated thyroid carcinoma (DTC) therapy is considered excellent over time, a small number of cases have a poorer prognosis and evolve into death.

OBJECTIVES

This study aimed to estimate the 5-year specific survival and to identify risk factors in a cohort of DTC adult subjects. Methods: Survival probability was estimated by the non-parametric Kaplan-Meier method in a retrospective hospital-based cohort study. Comparisons were done by means of the log rank test. Risk factors were sought using Cox risk modeling and crude and adjusted Hazard Ratio measures were obtained.

RESULTS

Specific 5-year survival in the cohort was 98.5% (95% CI: 94.2-97.5%). However, poorer survival was observed for those diagnosed at stage IV (47.1%; 95% CI: 30.4-73.0%), with a distant metastasis (54.8%; 95% CI: 39.2-76.4%) and submitted to radiotherapy (70.5%; 95% CI: 54.3-91.6%). The main factors associated with risk of death stratified by gender were age > 45 years old (aHR 9.88; 95% CI: 1.67-58.33), distant metastasis (aHR 18.87; 95% CI: 7.38-48.29) and lymphadenectomy (aHR 6.36; 95% CI: 2.26-17.91). On the other hand, radiodine therapy diminished the risk of death (aHR 0.16; 95% CI: 0.06-0.43).

CONCLUSION

This cohort had a very high survival over a 5-year period. The prognosis was negatively influenced by age > 45 years old, distant metastasis and lymphadenectomy, whereas radioiodine therapy was found to be protective.

Table 1 — Conditional 5-year survival probability estimated by Kaplan-Meier, mean survival time according to sociodemographic, tumor characteristics and treatment for patients with differentiated thyroid cancer.

Table 2 — Crude and adjusted Hazard ratios for differentiated thyroid cancer patients, using the Cox model.