

Prognostic factors for differentiated thyroid carcinoma and review of the literature

Yuan Zhao, Yang Zhang, Xing-jun Liu, and Bing-yin Shi

Department of Endocrinology, the First Affiliated Hospital of Xi'an Jiaotong University School of Medicine, Xi'an, China

ABSTRACT

Objective. Prognostic factors of differentiated thyroid carcinoma (DTC) are analyzed to justify the diagnostic and therapeutic modalities of DTC in current practice.

Methods. Patients undergoing curative resection for histologically diagnosed DTC (n = 150) were consecutively enrolled, and the clinical and pathological data were retrospectively reviewed.

Results. The DTC patient cohort consisted of 113 females (75.3%; mean age at the time of onset, 40.1 ± 12.0 yr) and 37 males (24.7%; 47.5 ± 16.2 yr). The pathological types of DTC included papillary thyroid carcinoma (n = 131, 87.3%) and follicular thyroid carcinoma (n = 19, 12.7%). The follow-up period ranged from 4.2 to 31 years, in which period 140 (93.3%) patients survived, 30 (20.0%) patients relapsed, and 10 (6.7%) patients died of DTC. Surgical procedures used for the curative resection consisted of near-total or subtotal thyroidectomy (n = 83, 55.3%), partial thyroidectomy (n = 64, 42.7%) and total thyroidectomy (n = 3, 2.0%). Out of those patients undergoing concomitant lymph node dissection (n = 63, 42.0%), 45 patients (71.4%) had detectable lymph node metastases. Postoperatively, 12 patients (8.0%) received external beam radiotherapy, 16 patients (10.7%) received chemotherapy, 37 patients (24.7%) received ¹³¹I therapy, and 66 patients (44.0%) received additional long-term L-T4 or thyroid hormone treatment. Age of onset, tumor size at initial visit, and rate of early metastasis showed statistically significant differences between the mortality group and the survival group (*P* < 0.05) and between the recurrence group and the recurrence-free group (*P* < 0.05).

Conclusions. Age, tumor size at initial visit, and early metastasis are prognostic factors for DTC, requiring a stratified management in clinical practice.

Key words: differentiated thyroid carcinoma, prognostic factors.

Correspondence to: Bing-yin Shi, MD, Department of Endocrinology, The First Affiliated Hospital of Xi'an Jiaotong University School of Medicine, 277 Yanta West Road, Xi'an 710061, China.
Tel +86-29-8532-3974;
fax +86-29-8532-3974;
email shibingy@126.com

Received June 2, 2011;
accepted January 26, 2012.