ULTRASONOGRAPHY MAY DETECT MALIGNANT NODULES IN PATIENTS WITH HASHIMOTO'S DISEASE

Mukasa K, Noh JY, Kunii Y, Matsumoto M, Sato S, Yasuda S, Suzuki M, Ito K, Ito K. **Prevalence of malignant tumors and adenomatous lesions detected by ultrasonographic screening in patients with autoimmune thyroid diseases.** Thyroid 2011;21:37-41. Epub October 9, 2010.

SUMMARY • • • • • • • • • • • • • • •

BACKGROUND

There has been considerable controversy about whether autoimmune thyroid disease predisposes patients to papillary thyroid cancer. The purpose of the study was to determine the incidence of thyroid cancer in patients with Hashimoto's thyroiditis or Graves' disease.

METHODS

The authors performed thyroid ultrasonography to detect thyroid nodules in 2036 patients with Hashimoto's thyroiditis and 1652 patients with Graves' disease. If nodules larger than 1 cm and suspicious for a malignant tumor were found based on ultrasound criteria, ultrasound-guided fine-needle aspiration (FNA) biopsy was performed.

RESULTS

Thyroid nodules were found in 634 patients (31%) with Hashimoto's disease and in 294 (18%) with Graves' disease. FNA was carried out in 177 of the Hashimoto's group and in 50 of the Graves' patients. Thirty-eight of the patients with Hashimoto's disease (1.8%) had papillary cancer, and two had malignant lymphoma. Seventeen (1%) of the Graves' group had differentiated thyroid cancer. The remainder of the biopsies were adenomatous lesions.

CONCLUSIONS

The authors recommend performing ultrasonography at the time of the initial visit in patients with autoimmune thyroid disease to detect malignant thyroid tumors.

COMMENTARY • • • • • •

There have been many reports about the coexistence of papillary thyroid cancer and Graves' disease when patients were treated with surgical thyroidectomy and the resected gland was studied carefully. The thyroid-stimulating IgG has been thought to play a role in stimulating growth of the tumor cells. Since Graves' disease is rarely treated by surgery in the United States currently, the finding of incidental thyroid carcinomas is now rare.

This article is most interesting in regard to finding a 1.8% incidence of papillary thyroid cancer in patients with Hashimoto's disease. This comprised 5.7% of the biopsies, a figure very similar to the incidence of malignancy found in many early FNA reports (1) and less than the figure of 10% or higher noted in more recent reports (2). A recent prospective study in Turkey found that only 2 of 191 patients with Hashimoto's

disease with nodules had thyroid cancer, as compared with 19 of 713 nodules in a control (no Hashimoto's disease) group, the difference being not significant (3). However, there continue to be publications, usually retrospective surgical series, claiming that Hashimoto's disease is a risk factor for papillary thyroid cancer (4).

Despite this long-standing controversy concerning whether Hashimoto's thyroiditis predisposes to thyroid neoplasia, I generally tell my patients that Hashimoto's disease does not predispose to thyroid cancer (aside from the rare lymphoma), but that distinct nodules found on ultrasound have to be evaluated in a conventional manner. On ultrasonography, many of these lumpy Hashimoto's glands are diffusely sonolucent and have no distinct worrisome nodules, making it reasonable to reassure the patient that there is no evidence of malignancy.

— Jerome M. Hershman, MD

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