## Family History Linked to Early Thyroid Diagnoses

BY HEIDI SPLETE Senior Writer

PHOENIX — Family history of thyroid disease and a lower median age at diagnosis were significantly associated with illness in a study of 2,805 adults with thyroid disease, researchers reported in a poster presented at the annual meeting of the American Thyroid Association.

To assess the genetic and environmental factors that impact thyroid disease, Dr. N. Manji of the University of Birmingham (England) and colleagues reviewed data from 2,405 patients with Graves' disease (GD) and 400 patients with Hashimoto's thyroiditis (HT).

Overall, 957 GD patients and 223 HT patients reported a family history of thyroid dysfunction. GD patients who reported a parent with thyroid dysfunction were significantly younger than patients who did

## Risk of Thyroid Cancer Is Higher In Young, Men

PHOENIX — Younger age and male sex were significantly associated with an increased risk of malignancy in thyroid nodules, according to the results of a study of 371 thyroid cancer patients.

Few risk factors—aside from childhood radiation exposure—have been shown to predict whether a patient's thyroid nodule is malignant, wrote Dr. Leila Yassa of Harvard University and her colleagues in a poster presented at the annual meeting of the American Thyroid Association.

To assess the impact of age and sex on the risk of malignancy, the researchers reviewed data from 2,601 consecutive patients (ages 18-94) with thyroid nodules who had ultrasound-guided fine-needle aspiration of nodules at least 1 cm in size. The patients' mean age was 49 years, and 88% were women. Overall, thyroid cancer (a malignancy at least 1 cm in size) was identified in 297 of 2,280 women (13%) and 74 of 321 men (23%).

Both the presence of multiple nodules and the risk that a nodule was cancerous decreased significantly among women as they aged. Neither of these factors was associated with age in men. In men and women, the highest incidence of cancer occurred among 18- to 30-year-olds: 53 of 235 (23%) women and 9 of 27 (33%) men. But male sex was associated with a 63% increased risk of thyroid cancer independent of age.

An additional 39 patients were diagnosed with a papillary carcinoma less than 1 cm in size in the aspirated nodule, and another 38 patients had an incidental papillary carcinoma less than 1 cm in size in an otherwise benign tissue sample that was not the aspirated nodule. Based on these findings, age and gender can be used to stratify cancer risk in patients with thyroid nodules at least 1 cm in size and to guide counseling efforts and prioritize further evaluation, the researchers said.

-Heidi Splete

not report a family history when their disease was diagnosed (38 years vs. 43 years); the same was true for HT patients (39 years vs. 47 years). Among the GD patients, a younger age at diagnosis was independently associated with more severe disease and the presence of a palpable goiter.

Of note, GD patients were significantly more likely to have a relative with hyperthyroidism than with hypothyroidism (30% vs. 24%), while HT patients were significantly more likely to have a relative with hypothyroidism than with hyperthyroidism (42% vs. 23%). This finding supports recent data that have suggested a disease-specific genetic effect within the spectrum of autoimmune disease, the researchers noted.

Patients reported a family history of thyroid disease in a maternal relative significantly more often than in a paternal relative, regardless of whether they had GD or HT. In addition, smoking and having a higher serum-free T4 level at the time of thyroid disease diagnosis were significant independent predictors of ophthalmopathy. Additional studies of the interactions between genetic and environmental factors in thyroid disease could help prevent disease and develop customized therapies, the researchers noted.

Complete results of the study appeared in a recent issue of the Journal of Clinical Endocrinology and Metabolism (J. Clin. Endocrin. Metab. 2006 Sept. 12 [Epub doi:10.1210/jc.2006-1402]).

