



THYROID CANCER

Nonmedullary thyroid cancer survival is similar regardless of whether it runs in families

BACKGROUND

The thyroid cancer that most frequently runs in families is medullary thyroid cancer and is associated with certain cancer-associated genes. Occasionally nonmedullary thyroid cancer (usually papillary thyroid cancer) runs in families. Much less is known about this form of thyroid cancer, as there are no known cancer-associated genes or risk factors. Some prior studies suggest that familial nonmedullary thyroid cancer is more aggressive, with more frequent cancer return and worse survival, while other studies suggest there is no difference from the usual thyroid cancer. This study was done to determine whether patients with familial nonmedullary thyroid cancer had worse outcomes compared to patients with the usual sporadic form of nonmedullary thyroid cancer that does not run in families.

THE FULL ARTICLE TITLE:

Robenshtok E et al. Clinical characteristics and outcome of familial nonmedullary thyroid cancer: a retrospective controlled study. *Thyroid* 2011;21:43-8. Epub October 18, 2010.

SUMMARY OF THE STUDY

Sixty-seven patients diagnosed with familial nonmedullary thyroid cancer and 375 patients with sporadic nonmedullary thyroid cancer were studied. Patients with familial cancer had complete records regarding the spread of cancer, the type of thyroid cancer and treatments given. Also, they had 2 first-degree relatives with nonmedullary

thyroid cancer as confirmed by the investigators. The 67 patients included 54 patients from the Israeli Rabin Medical Center Thyroid Cancer Registry and 13 patients from other endocrine clinics in Israel seen since 1973. Patients with sporadic nonmedullary thyroid cancer were drawn from the Rabin Medical Center Thyroid Cancer Registry. Patients with known cancer-causing genes and exposures were excluded from the study. There was an average of 8-9 years for which there was follow up information after the initial thyroid cancer diagnosis. Patients with familial forms of nonmedullary thyroid cancer did not differ from patients with nonfamilial forms in the spread of cancer at the time of diagnosis, types of surgery and treatments and time after the initial treatment without thyroid cancer return.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that familial forms of nonmedullary thyroid cancer are not a more aggressive form of thyroid cancer and have similar risk of thyroid cancer return compared to nonfamilial forms of nonmedullary thyroid cancer. The implication is that patients with familial forms of nonmedullary thyroid cancer do not need to undergo more aggressive treatment at the time of the initial diagnosis and therapy.

— Ruth Belin, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html

ABBREVIATIONS & DEFINITIONS

Cancer-associated genes — these are genes that are normally expressed in cells. Cancer cells frequently have mutations in these genes. It is unclear whether mutations in these genes cause the cancer or are just associated with the cancer cells. The cancer-associated genes important in thyroid cancer are BRAF, RET/PTC and RAS.

Cancer recurrence — this occurs when the cancer comes back after an initial treatment that was successful in destroying all detectable cancer at some point.

Medullary thyroid cancer — a relatively rare type of

thyroid cancer that often runs in families. Medullary cancer arises from the C-cells in the thyroid.

Familial nonmedullary thyroid cancer — type of thyroid cancer that runs in families that is not medullary thyroid cancer. This is usually papillary thyroid cancer and occurs in about 10% of thyroid cancers.

Sporadic nonmedullary thyroid cancer — usual form of thyroid cancer that does not have a genetic component and does not run in families.

Papillary thyroid cancer — the most common type of thyroid cancer.