CLINICAL THYROIDOLOGY **FOR THE PUBLIC**

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THYROID CANCER

Does papillary thyroid cancer run in families?

BACKGROUND

Most papillary thyroid cancers occur in individuals without a family history of thyroid cancer (sporadic thyroid cancer). Known factors that increase the chance of developing papillary thyroid cancer are radiation exposure to the head and neck area, iodine deficiency and history of thyroid diseases. Approximately 5% of thyroid cancers are thought to run in families (familial thyroid cancer). Previous studies showed that patients having a relative diagnosed with papillary thyroid cancer have a 5-10 fold higher chance of developing the thyroid cancer themselves and are more likely to have a more aggressive form of cancer. It is thus important to detect and treat the at-risk relatives at an early stage. In this study, the authors studied the familial risk of developing papillary thyroid cancer in large Utah population

THE FULL ARTICLE TITLE

Oakley GM et al. Establishing a familial basis for papillary thyroid carcinoma using the Utah population database. JAMA Otolaryngol Head Neck Surg. October 3, 2013 [Epub ahead of print].

SUMMARY OF THE STUDY

A total of 4460 patients diagnosed with papillary thyroid cancer in Utah were compared to individuals similar by sex, age and place of birth but without known thyroid disease. The chance of developing papillary thyroid cancer among first, second and third degree relatives was then measured.

A 5-fold higher chance of developing papillary thyroid cancer was seen among first degree relatives. This was especially true for brothers and sisters (6.8-fold). Risk of developing papillary thyroid cancer among second degree (grandparents, aunts, uncles, cousins: 2.24-fold) and third degree (first cousins: 1.76-fold) relatives was much lower, but still significantly higher than individuals without known thyroid disease.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The results of this study confirm prior reports that there is an increased risk of developing thyroid cancers in families. However, it remains uncertain if that increased familial risk is due to common genetic causes or exposure to the same environmental factors within a same household. Until more is known on the topic, there are currently no specific recommendations for screening of family members of affected thyroid cancer patients.

— Mona Sabra, MD

ATA THYROID BROCHURE LINKS

Thyroid cancer: http://www.thyroid.org/cancer-of-the-thyroid-gland

ABBREVIATIONS & DEFINITIONS

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

Familial 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 thyroid cancer: usual form of thyroid cancer that does not have a genetic component and does not run in families.