CLINICAL THYROIDOLOGY **FOR PATIENTS**

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THYROID CANCER

Risk of Metastasis from Papillary Thyroid Cancer Originating in Thyroglossal Duct Cysts

WHAT IS THE STUDY ABOUT?

During development, the thyroid gland initially forms in the mouth of the fetus and then descends to its final position in the mid to lower neck using a connection referred to as thyroglossal duct. After birth, the thyroglossal duct usually goes away, but it may persist in some people. This can lead to the formation of a thyroglossal duct cyst that causes a midline neck lump. These cysts can become inflamed leading to pain. The cysts also may contain thyroid tissue that did not descend with the rest of the thyroid gland. Very rarely, this thyroid tissue can develop into a cancer. This study examines the clinical features of these thyroglossal duct cyst cancers.

THE FULL ARTICLE TITLE:

Hartl et al. High rate of multifocality and occult lymph node metastases in papillary thyroid carcinoma arising in thyroglossal duct cysts. Ann Surg Oncol 2009;16:2595-601.

WHAT WAS THE AIM OF THE STUDY?

The aim of the study was to determine the clinical features of thyroglossal duct cyst cancers, including: 1) number and location of cancer sites at diagnosis, 2) presence of spread to lymph nodes at the time of diagnosis, and 3) progression of the cancer over time.

WHO WAS STUDIED?

The study group included a total of 18 patients (13 women and 5 men) seen at the Gustave Rouissy Institute in France between 1979 and 2008 that had papillary thyroid cancer arising from a thyroglossal duct cyst.

HOW WAS THE STUDY DONE?

The records of the patients in the study group were examined.

WHAT WERE THE RESULTS OF THE STUDY?

All patients had surgery to remove the thyroglossal duct cyst and most of them had a follow-up surgery to remove their thyroid gland and lymph nodes (83%). Some of the patients were subsequently treated with radioactive iodine therapy (67 % of them). In addition to cancer found in thyroglossal duct cyst, 56% of the patients had cancer in the thyroid gland as well. In addition, most patients had spread of the cancer to the lymph nodes in the neck (86%). Surprisingly, it was common for patients to have spread of the cancer to lymph nodes in the lateral neck and not in the central neck, resulting in what is referred to as a "skip" metastasis. Skip metastasis was noted in 40% in this study as compared to only 20% in usual cases of papillary thyroid cancer.

All patients were apparently cured of their cancer with no evidence of the cancer found after 11 years follow-up, regardless of extent of surgery or whether they received radioactive iodine or not.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

There are no other studies of this extent examining this rare cancer. However, looking at the more common papillary thyroid cancer originating within the thyroid, another study from the same institution in France found similar results after examining spread to the lymph nodes.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

It is common for papillary cancers arising in thyroglossal duct cyst to have cancer also in the thyroid gland and in lymph nodes in the neck. The authors suggest that papillary cancer arising from a thyroglossal duct cyst be managed the same way as if it started within the thyroid gland.

— Mona Sabra, MD

ATA THYROID BROCHURE LINKS

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

ABBREVIATIONS & DEFINITIONS

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

Lymph node — bean-shaped organ that plays a role in removing what the body considers harmful, such as infections and cancer cells.

Thyroglossal duct cyst — a lump found in the midline of the neck that was part of a structure (thyroglossal duct) that is formed in the development of the thyroid in the fetus.