



## THYROID CANCER

### Survival prognosis in metastatic thyroid cancer

#### BACKGROUND

Most patients with thyroid cancer have the cancer contained in the thyroid at the time of diagnosis. About 30% will have metastatic cancer, with most having spread of the cancer to the lymph nodes in the neck and only 1-4% having spread of the cancer outside of the neck to other organs such as the lungs and bone. Most patients with thyroid cancer have an excellent prognosis, even if there is spread outside of the neck at the time of diagnosis. However, death, while rare, occurs mainly in patients that have spread of the cancer outside of the neck to other organs. This study examined patients with metastatic cancer outside of the neck to determine the factors that predict prognosis.

#### THE FULL ARTICLE TITLE

Wang LY et al. Multi-organ distant metastases confer worse disease-specific survival in differentiated thyroid cancer. *Thyroid*. September 24, 2014 [Epub ahead of print].

#### SUMMARY OF THE STUDY

The Memorial Sloan-Kettering institutional database was searched for patients with thyroid cancer with distant metastases found either at diagnosis or during follow-up. Spread of the cancer to single organs developed in 93 patients and multi-organ spread was seen in 32 patients. The average follow-up was 77 months. Overall survival and recurrence-free survival were calculated at 5 years.

In this group, 70% of patients had spread of the cancer to the lymph nodes in the neck and 57% had spread of the cancer outside of the neck. The lung was the most common site of distant metastasis (84%). The 5-year survival was 77.6% in patients with single-organ metastasis and 15.3 % in patients with multi-organ metastases. The average interval between the first and second metastases was 14.7 months. Progression from single- to multi-organ metastases occurred in 76% of patients at 5 years. An age >45 years and an unstimulated thyroglobulin level of >30 ng/ml when distant metastasis was discovered were predictive of the development of multi-organ metastases.

#### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Multi-organ distant metastases are predictive of poor overall survival as these patients had a three-fold higher risk of death than patients with single-organ metastases. This study suggests that patients that have spread of the cancer outside of the neck when initially diagnosed should be treated aggressively, as this is the population that is most likely to die of thyroid cancer.

— Alan P. Farwell, MD

#### ATA THYROID BROCHURE LINKS

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

#### ABBREVIATIONS & DEFINITIONS

**Cancer metastasis:** spread of the cancer from the initial organ where it developed to other organs, such as the lungs and bone.

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

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