



## MEDULLARY THYROID CANCER

### Patients with early-stage medullary thyroid cancer have similar survival to general population

#### BACKGROUND

Medullary thyroid cancer a relatively rare type of thyroid cancer that often runs in families. Even though medullary thyroid cancer accounts for only 2-5% of all thyroid cancers, it is responsible for a large percentage of deaths from thyroid cancer. The main reason for this is that radioactive iodine is not effective in treating this cancer. The primary treatment for medullary thyroid cancer is surgery. Patients can do well if the cancer is detected early, but have a poor prognosis once it has spread beyond the thyroid. This study looks at risk factors for a bad prognosis in a subset of patients with medullary thyroid cancer.

#### THE FULL ARTICLE TITLE

Mathiesen JS et al C 2019 Survival and long-term biochemical cure in medullary thyroid carcinoma in Denmark 1997-2014: a nationwide study. *Thyroid*. Epub 2019 Jan 31. PMID: 30618340.

#### SUMMARY OF THE STUDY

The study looked at 220 patients in the Danish Thyroid Cancer Database diagnosed with medullary thyroid cancer over a 20 year time period. Endpoints were overall and disease-specific survival and long-term biochemical cure as defined by undetectable calcitonin levels at last follow-up. Patients were compared to a group of healthy Danish controls that were matched by sex and age to the medullary thyroid cancer group.

Almost 25% of patients had hereditary medullary thyroid cancer and of those, 10/53 were identified by screening; most had a moderate-risk gene mutation causing the cancer. Hereditary cases were diagnosed at a younger age, and those diagnosed by screening presented at an earlier disease stage. Patients with hereditary medullary thyroid cancer diagnosed by screening had similar overall survival to that of the general population. Patients with both sporadic and hereditary medullary thyroid cancer diagnosed by symptoms had a decreased survival compared to the general population. However, the most important predictors of disease-specific survival were younger age at diagnosis and lack of spread beyond the thyroid and lymph node involvement was the most important predictor of biochemical cure, which was important for disease-specific survival.

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

Patients diagnosed with early-stage medullary thyroid cancer, including patients with hereditary medullary thyroid cancer detected by screening, have similar survival to that of the general population. However, patients that present with spread to the lymph nodes rarely achieve a biochemical cure, which confirms prior studies. Sharing this information with patients who present with spread to the lymph nodes can temper expectations for biochemical cure but provide reassurance about long-term survival even in the presence of persistently elevated calcitonin levels.

— Melanie Goldfarb MD, MS, FACS, FACE

#### ATA THYROID BROCHURE LINKS

Medullary Thyroid Cancer: <https://www.thyroid.org/medullary-thyroid-cancer/>





**MEDULLARY THYROID CANCER, continued**

**ABBREVIATIONS & DEFINITIONS**

**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.

**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.

**Calcitonin:** a hormone that is secreted by cells in the thyroid (C-cells) that has a minor effect on blood calcium levels. Calcitonin levels are increased in patients with medullary thyroid cancer.

