



## ANAPLASTIC THYROID CANCER

### Outcome of anaplastic thyroid cancer can be improved in some patients by using complete surgery and high-dose radiotherapy

#### BACKGROUND

The majority of thyroid cancers are usually slow growing cancers and patients usually do well with surgery and, when indicated, radioactive iodine therapy. Only a few patients die of the most common forms of thyroid cancer. In contrast, anaplastic thyroid cancer is a very rare and aggressive form of thyroid cancer that grows very rapidly. Anaplastic cancer occurs most often in people over age 60 and most patients have a poor outcome, with a life expectancy less than 6 months. However, a few patients do survive for a long time for unknown reasons. This study was done to examine which factors and therapies can improve the outcome in patients with anaplastic thyroid cancer.

#### THE FULL ARTICLE TITLE:

Akaishi J et al. Prognostic factors and treatment outcomes of 100 cases of anaplastic thyroid carcinoma. *Thyroid* 2011;21:1183-9. Epub September 21, 2011.

#### SUMMARY OF THE STUDY

The records of 100 patients 41-90 years of age with anaplastic thyroid cancer diagnosed between 1993 and 2009 were reviewed and analyzed in this study. A total of 81 out of 100 patients died because of anaplastic cancer. Long-term survival was seen only in 14 patients.

A total of 70 patients received surgery; 24 of them had a complete thyroidectomy. A total of 78 patients were treated with radiotherapy; most (58) of them with a high-dose radiotherapy. A total of 27 patients received chemotherapy and 15 patients received combined therapy of surgery, radiotherapy and chemotherapy.

Poor prognostic factors were age over 70 years, spread of cancer outside the thyroid and spread of the cancer outside of the neck. Patients with a complete thyroidectomy and high-dose radiotherapy had the best outcome in this study.

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

Overall, outcome of anaplastic thyroid cancer remains poor. This study suggests that only a combination of a complete thyroidectomy and high-dose radiotherapy can improve the outcome in patients with anaplastic thyroid cancer. These results were also seen in another study from the Mayo clinic. These studies provide hope for patients with anaplastic thyroid cancer.

— Jamshid Farahati, MD

#### ATA THYROID BROCHURE LINKS

Thyroid cancer: [http://thyroid.org/patients/patient\\_brochures/cancer\\_of\\_thyroid.html](http://thyroid.org/patients/patient_brochures/cancer_of_thyroid.html)

#### ABBREVIATIONS & DEFINITIONS

**Anaplastic thyroid cancer:** a very rare but very aggressive type of thyroid cancer. In contrast to all other types of thyroid cancer, most patients with anaplastic thyroid cancer die of their cancer and do so within a few years.

**Radioactive iodine (RAI):** this plays a valuable role in diagnosing and treating thyroid problems since it is taken up only by the thyroid gland. I-131 is the destructive form used to destroy thyroid tissue in the treatment of thyroid cancer and with an overactive thyroid. I-123 is the non-destructive form that does

not damage the thyroid and is used in scans to take pictures of the thyroid (Thyroid Scan) or to take pictures of the whole body to look for thyroid cancer (Whole Body Scan).

**Total thyroidectomy:** surgery to remove the entire thyroid gland.

**External radiotherapy:** External radiotherapy uses high energy x-ray to destroy the cancer. The radiation is directed at the cancer from a radiotherapy machine outside the body. Normal cells in the radiotherapy area may also be damaged but they can usually repair themselves.