



THYROID CANCER

Radioactive iodine therapy does not increase survival in patients with low risk thyroid cancer

BACKGROUND

Thyroid cancer is routinely treated with surgery followed by radioactive iodine therapy. Radioactive iodine is used to destroy any remaining thyroid cells, either normal or cancer cells, and decrease future risk of cancer recurrence. In recent years there has been a debate regarding the use of radioactive iodine therapy in patients with low risk thyroid cancer. The argument is that these patients have an excellent prognosis and will do well, with a low risk of cancer recurrence, irrespective if they received radioactive iodine or not. Thus, it is now recommended that radioactive iodine therapy is not recommended for small thyroid cancers less than 1 cm in size and confined to the thyroid gland. However, there are other patients that are classified as low risk that do not fit these criteria and who still receive radioactive iodine therapy that they might not need.

In this study the authors examined the effect of radioactive iodine on the risk of cancer recurrence and survival of patients with low risk thyroid cancer.

THE FULL ARTICLE TITLE

Schwartz C et al Impact on overall survival of radioactive iodine in low-risk differentiated thyroid cancer patients. *J Clin Endocrinol Metab.* February 16, 2012 [Epub ahead of print].

SUMMARY OF THE STUDY

The study included 1275 French patients (82% female) with low risk thyroid cancer (72% papillary thyroid

cancer) treated between 1975 and 2005. They were classified as low risk (stage 1 or 2) if they had complete removal of their cancer at time of surgery, the cancers measured 1–4 cm and did not invade into surrounding tissues, blood vessels or lymph nodes. Most (70%) had radioactive iodine therapy after surgery. They were followed for 10 years after cancer diagnosis. Overall the cancer-free survival in the patients treated with radioactive iodine was 89% as compared to 93% for those who did not receive radioactive iodine. Cancer recurrences were found in 1.6% of those who received radioactive iodine and 1% of those who did not receive radioactive iodine. Thus, in these patients, radioactive iodine therapy had no effect on the risk of tumor recurrence and did not increase survival from thyroid cancer.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The results of this study support the observation of other studies that radioactive iodine does not benefit patients presenting with low risk thyroid cancer and can put them at risk for potential side effects.

— Mona Sabra, MD

ATA THYROID BROCHURE LINKS

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

Radioactive Iodine: <http://www.thyroid.org/radioactive-iodine>

ABBREVIATIONS & DEFINITIONS

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

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).