

**THYROID CANCER****Radioactive iodine therapy timing in thyroid cancer treatment.****BACKGROUND**

The first treatment option for thyroid cancer is surgical removal of the thyroid (thyroidectomy). Radioactive iodine therapy is recommended to many patients with thyroid cancer, especially those at increased risk for cancer recurrence after surgery. Radioactive iodine initially is given to destroy any residual thyroid cancer cells left behind after surgery. Once routine in all thyroid cancer patients, newer guidelines by the American Thyroid Association have recommended more limited use of radioactive iodine therapy. The timing of this treatment following thyroidectomy has been debated and this study sought to determine whether the timing of radioactive iodine therapy following thyroid surgery affected thyroid cancer outcomes.

THE FULL ARTICLE TITLE

Scheffel RS et al. Timing of radioactive iodine administration does not influence outcomes in patients with differentiated thyroid cancer. *Thyroid*. 26(11): 1623-1629. 2016.

SUMMARY OF THE STUDY

These investigators conducted a study of 545 patients with thyroid cancer who had radioactive iodine therapy after thyroidectomy. Patients were analyzed in two groups depending on whether their radioactive iodine therapy was less than 6 months after thyroidectomy (Group A) or more than 6 months after thyroidectomy (Group B). Patients were assessed for whether they were considered “disease-free” from thyroid cancer at 1 and 6 years following thyroidectomy. Patients were considered “disease-free” if all biochemical and imaging

evaluations were negative for evidence of thyroid cancer. The average time from surgery to radioactive iodine therapy was 3 months in Group A and 10.5 months in Group B. Patients in Group B tended to be older and have lower risk cancer than patients in Group A. Despite these differences in patient group characteristics, results demonstrated no differences in thyroid cancer recurrences between the groups. Similarly, the proportion of “disease-free” patients in each group was not significantly different. This shorter interval (<6 months) between surgery and radioiodine treatment was not associated with improved thyroid cancer outcomes compared with a longer interval (>6 months).

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that the timing of radioactive iodine therapy relative to thyroidectomy did not alter disease outcomes in thyroid cancer. This finding allows for more flexibility in timing when scheduling radioactive iodine therapy following thyroidectomy and, thus, patients can have more input on this timing relative to their life schedule.

— Whitney W. Woodmansee MD

ATA THYROID BROCHURE LINKS

Thyroid Cancer (Papillary and Follicular):
<http://www.thyroid.org/thyroid-cancer/>

Thyroid Cancer (Medullary):
<http://www.thyroid.org/medullary-thyroid-cancer/>

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

ABBREVIATIONS & DEFINITIONS

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).