



GRAVES' DISEASE

Comparison of treatment options for recurrent Graves' disease

BACKGROUND

Graves' disease is the most common cause of hyperthyroidism in the United States. Graves' disease is an autoimmune disease caused by an antibody that attacks and turns on the thyroid. Several treatment options exist for Graves' disease, including surgical thyroid removal, radioactive iodine (RAI) therapy and anti-thyroid medications (ATD). Many patients choose ATD treatment at initial diagnosis then continue this in hopes for a remission of the Graves' disease, which occurs when the antibody goes away. Unfortunately, this only occurs in ~25% of patients, so Graves' disease often recurs after stopping the ATD. Frequently, patients will then elect a more permanent option such as thyroid surgery or RAI. This study sought to investigate outcomes in patients with relapsed/recurrent Graves' disease after prior treatment with ATDs. They compared outcomes in patients who had received either RAI or chronic ATD therapy.

THE FULL ARTICLE TITLE

Villagelin D et al. Outcomes in Relapsed Graves' Disease Patients following Radioiodine or Prolonged Low Dose of Methimazole Treatment. *Thyroid*. Vol 25 (12), 2015 [Epub ahead of print].

SUMMARY OF THE STUDY

All patients had a history of Graves' disease that had been treated with an ATD. These patients later experienced a relapse/recurrence of Graves' disease and required repeat treatment. They compared outcomes in patients with relapsed Graves' disease who had either chosen repeat therapy with methimazole (an ATD) or more definitive therapy with RAI. Patients were followed for an average

of ~6 years following recurrence (relapse) of their Graves' disease. Patients who had chosen to have long term ATD therapy were more likely to have normal thyroid function (by blood tests) than those treated with RAI. Hypothyroidism was more common in those electing RAI treatment than ATDs at 60 months of follow up. Worsening of Graves' eye disease was more common in patients who had chosen RAI therapy. These investigators also examined patient quality of life using a questionnaire and found no differences in outcome with either therapy in patients with normal thyroid function. Body weight tended to be higher in patients treated with RAI compared to ATDs. The authors stated that there were no major adverse effects of methimazole during follow up and concluded that long term ATD therapy was safe and effective for the treatment of Graves' disease

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Chronic low dose ATD may be a viable treatment option for patients in whom Graves' disease relapses after initial ATD therapy. Treatment with long term low dose methimazole appears to be an effective and safe method for controlling hyperthyroidism due to Graves' disease. Patients treated with methimazole were more likely to have normal thyroid function than those treated with RAI. Further, chronic methimazole therapy may be preferred in patients with Graves' eye disease.

— Whitney Woodmansee MD

ATA THYROID BROCHURE LINKS

Hyperthyroidism: <http://www.thyroid.org/hyperthyroidism/>

ABBREVIATIONS & DEFINITIONS

Hyperthyroidism: a condition where the thyroid gland is overactive and produces too much thyroid hormone. Hyperthyroidism may be treated with antithyroid meds (Methimazole, Propylthiouracil), radioactive iodine or surgery.

Graves' disease: the most common cause of hyperthyroidism in the United States. It is caused by antibodies that attack the thyroid and turn it on.

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).



GRAVES' DISEASE, continued

Methimazole: an antithyroid medication that blocks the thyroid from making thyroid hormone. Methimazole is used to treat hyperthyroidism, especially when it is caused by Graves' disease.