



HYPERTHYROIDISM

Antithyroid drugs remain the first choice for treatment in uncomplicated Graves' disease

BACKGROUND

Graves' disease is the most common cause of hyperthyroidism in the US and is caused by an antibody that turns on the thyroid. There are three different options for the treatment of Graves' hyperthyroidism: antithyroid drug treatment, radioactive iodine therapy and surgery. The goal with antithyroid drug treatment is to decrease the thyroid antibodies and induce a remission of the disease. This occurs only ~25% of the time in the US. Radioactive iodine therapy and surgery are definitive therapy that destroys the thyroid and usually results in hypothyroidism. In Europe and Japan antithyroid drug therapy is the most common treatment option, whereas in the US radioactive iodine is favored. This study was done to assess the stability of remission of Graves' disease after antithyroid drugs in the Swedish population.

THE FULL ARTICLE TITLE

Mohlin E et al 2013 Long-term prognosis after medical treatment of Graves' disease in a northern Swedish population 2000-2010. *Eur J Endocrinol* 2014;170:419-27.

SUMMARY OF THE STUDY

This study followed patients from 2000-2011 in northern Sweden. A total of 442 patients with Graves' disease were included in this study. Methimazole was the antithyroid drug used. The average treatment period was 6-18 months

and only 219 patients were treated for >6 months. A total of 51% of the patients had goiters and 26% had Graves' eye disease. The average follow-up was 2.1 years and the maximum 10 years. The highest relapse rate was observed within the first 6 months after stopping treatment. Surprisingly, 58% were in remission 3 to 5 years later and 56% after 10 years. Prior smokers had much better remission rates than current smokers.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Antithyroid drugs are used frequently in Sweden and this study shows a higher remission rate than previously thought. A lower remission rate was associated with increased goiter size and current smokers. This is a good study because it reminds us that the use of antithyroid drugs is an important option in treating patients with Graves' hyperthyroidism and the remission rate may be higher now than previously thought.

— Heather Hofflich, DO

ATA THYROID BROCHURE LINKS

Graves' disease: <http://www.thyroid.org/what-is-graves-disease>

Goiter: <http://www.thyroid.org/what-is-a-goiter>

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

ABBREVIATIONS & DEFINITIONS

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.

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.

Goiter: a thyroid gland that is enlarged for any reason is called a goiter. A goiter can be seen when the thyroid

is overactive, underactive or functioning normally. If there are nodules in the goiter it is called a nodular goiter; if there is more than one nodule it is called a multinodular goiter.

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.