



GRAVES' DISEASE

A survey of management of uncomplicated Graves' disease shows a change in treatment practices

BACKGROUND

Graves' disease is the most common cause of hyperthyroidism in the United States. It is caused by an antibody (thyroid stimulating immunoglobulin, TSI) that attacks and turns on the thyroid, causing it to be overactive. Antithyroid drugs such as methimazole are used to return thyroid function to normal. Long-term (1-2 years) treatment with methimazole can occasionally cause the TSI to go away and the Graves' disease go into remission. Alternatively, the thyroid can be destroyed by treatment with either radioactive iodine or surgery. In the United States, radioactive iodine is the most common treatment for Graves' disease. In 2011, the authors performed a survey of the management of Graves' disease by members of various endocrine societies here and abroad. The results were compared with those of a similar survey published in 1990.

THE FULL ARTICLE TITLE

Burch HB et al. A 2011 survey of clinical practice patterns in the management of Graves' disease. *J Clin Endocrinol Metab* 2012;97:4549-58. Epub October 5, 2012; doi: 10.1210/jc.2012-2802.

SUMMARY OF THE STUDY

A survey that contained several clinical cases, including a 42 year old woman and a 22 year old woman who was thinking about getting pregnant in the next year. These were the same clinical cases that were included in the 1990 survey. The survey was web-based and the target groups were members of the American Thyroid Association (ATA), The Endocrine Society (TES) and the American Association of Clinical Endocrinologists (AACE). There were 730 respondents, including 162 members of

ATA, 648 of TES and 333 of AACE, many having dual membership in the societies.

For primary therapy, 54% preferred antithyroid drugs, 45% preferred radioactive iodine and only 1% preferred thyroidectomy. In North America, 59% would choose radioactive iodine as compared with 69% in 1990. With regard to the choice of antithyroid drugs, 83.5% would use methimazole whereas in 1990 73% selected PTU. With regard to the duration of antithyroid drug therapy, 19.3% would treat for 24 months, 35.4% for 18 months, 30.2% for 12 months and 13.9% for less than 1 year. With regard to pretreatment of patients with antithyroid drugs before radioactive iodine, 49% used this only in selected patients, 13% never did this and 38% did this routinely.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

During the past two decades there has been a shift away from radioactive iodine and toward antithyroid drugs for treatment of patients with uncomplicated Graves' disease. This is especially true for physicians in North America. There also has been a shift from PTU to methimazole in choice of antithyroid drug. This is consistent with recently released guidelines for management of hyperthyroidism published by ATA and AACE.

— Alan Farwell, MD

ATA THYROID BROCHURE LINKS

Hyperthyroidism: <http://www.thyroid.org/what-is-hyperthyroidism>

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

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GRAVES' DISEASE, continued

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.

Antithyroid drugs: medications that block the thyroid from making thyroid hormone. They are used to treat hyperthyroidism, especially when it is caused by Graves' disease. The main antithyroid drugs in the United States are Methimazole and Propylthiouracil.

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. It is usually given once a day.

Propylthiouracil (PTU): an antithyroid medication that blocks the thyroid from making thyroid hormone. PTU is used to treat hyperthyroidism, especially when it is caused by Graves' disease. It is usually given more than once a day.

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).