



HYPERTHYROIDISM

The natural progression of mild subclinical hyperthyroidism in elderly women

BACKGROUND

Hyperthyroidism occurs when the thyroid gland is overactive (producing too much of the thyroid hormones). This is usually caused by Graves' disease or a toxic nodular goiter. Overt hyperthyroidism occurs when the thyroid hormones are elevated and TSH is suppressed. Subclinical hyperthyroidism (a milder version) occurs when only the TSH is low and the thyroid hormones are normal. While subclinical hyperthyroidism may simply be early in the disease, eventually progressing to overt hyperthyroidism, sometimes it resolves on its' own or remains stable. Patients with overt hyperthyroidism usually require treatment with medications, radioactive iodine or thyroid surgery. Those with subclinical hyperthyroidism may not require any treatment aside from monitoring. This study was done to see how often older women with subclinical hyperthyroidism progress to overt hyperthyroidism.

THE FULL ARTICLE TITLE:

Rosario PW. Natural history of subclinical hyperthyroidism in elderly patients with TSH between 0.1 and 0.4 mIU/l: a prospective study. *Clin Endocrinol (Oxf)* 2010;72:685-8.

SUMMARY OF THE STUDY

The study included 102 women over age 60 in Brazil who had subclinical hyperthyroidism diagnosed between 2003-

2008. Most (91 women) had hyperthyroidism from a toxic nodular goiter. All women were followed for up to 6 years, during which they had repeat blood tests every 3-6 months. They found that in women over age 60 with subclinical hyperthyroidism, progression to overt hyperthyroidism occurs at a rate of 1% per year. About a quarter of the patients reverted to normal thyroid function, with the majority remaining with stable subclinical hyperthyroidism.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The results of this study are reassuring in that only a small proportion of elderly individuals with subclinical hyperthyroidism go to develop overt hyperthyroidism. This means that most of these women do not require treatment other than periodic monitoring. One potential drawback of this study is that only a few of the patients likely had Graves' disease, the most common cause of hyperthyroidism in the United States. Thus, these results may not be directly applicable to women in this country.

— Angela Leung, MD

ATA THYROID BROCHURE LINKS

Hyperthyroidism: http://thyroid.org/patients/patient_brochures/hyperthyroidism.html

Graves disease: http://thyroid.org/patients/patient_brochures/graves.html

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.

Subclinical Hyperthyroidism — a mild form of hyperthyroidism where the only abnormal hormone level is a decreased TSH.

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.

Toxic nodular goiter — characterized by one or more nodules or lumps in the thyroid that may gradually grow and increase their activity so that the total output of thyroid hormone in the blood is greater than normal.

TSH: Thyroid stimulating hormone — produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.