



HYPERTHYROIDISM

Older patients with hyperthyroidism have fewer symptoms as compared with younger patients

WHAT IS THE STUDY ABOUT?

Thyroid disorders are common in the elderly population. In general, elderly patients have been shown to have less severe signs of hyperthyroidism than younger patients. In fact, the term “apathetic thyrotoxicosis” has been coined to refer to the elderly patient with few, if any, symptoms of hyperthyroidism and appearing more clinically hypothyroid. The aim of this study was to characterize these observations further and to determine the frequency of the signs and symptoms of hyperthyroidism in an elderly population.

THE FULL ARTICLE TITLE:

Boelaert et al. Older subjects with hyperthyroidism present with a paucity of symptoms and signs: a large cross-sectional study. *J Clin Endocrinol Metab* 2010. jc.2009-2495 [pii];10.1210/jc.2009-2495 [doi].

WHAT WAS THE AIM OF THE STUDY?

The aim of this study was to determine the frequency of the signs and symptoms of hyperthyroidism in an elderly population.

WHO WAS STUDIED?

The study group included 3409 patients with overt hyperthyroidism (increased T₄ and T₃ levels and suppressed TSH levels) seen at the University Hospital of Birmingham, England, between 1984–2006.

HOW WAS THE STUDY DONE?

Patients were seen at a thyroid clinic at the University Hospital of Birmingham where they were evaluated by a clinician. A questionnaire was given to patients to assess their symptoms of thyroid disease. All patients had a physical exam and a laboratory test of serum free thyroxine (fT₄) was drawn. Patients were divided into quartiles of age at the time of diagnosis of hyperthyroidism: 766 were 16 to 32 years of age, 772 were 33 to 44 years of age, 779 were 45 to 60 years of age and 732 were ≥61 years of age. They were also divided into

three groups depending on their diagnosis: (1) Grave’s hyperthyroidism, (2) toxic nodular hyperthyroidism or (3) indeterminate (unable to provide accurate diagnosis, but lab and exam consistent with hyperthyroidism).

WHAT WERE THE RESULTS OF THE STUDY?

The most common symptom in all ages was weight loss. Weight loss and shortness of breath were more common in patients >61 years of age and atrial fibrillation was more common in those patients >45 years of age. Symptoms such as heat intolerance, tremor, palpitations and anxiety were less common in patients >61 years of age. The majority of patients older than 61 years of age reported a maximum of two symptoms.

HOW DOES THIS COMPARE WITH OTHER STUDIES?

Other studies have shown similar findings. A prior study by this group had found that elderly patients have less severe symptoms of Grave’s hyperthyroidism. They also found that elderly patients have lower serum T₄ concentrations as compared to younger patients.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Elderly patients may have fewer signs and symptoms of hyperthyroidism than younger patients. It is important for the clinician to have a lower threshold in ordering thyroid function tests in older patients with atrial fibrillation, shortness of breath or weight loss.

— Heather Hofflich, MD

ATA THYROID BROCHURE LINKS

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

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

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HYPERTHYROIDISM, 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.

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.

Thyroxine (T₄) — the major hormone secreted by the thyroid gland. Thyroxine is broken down to produce Triiodothyronine which causes most of the effects of the thyroid hormones.

Triiodothyronine (T₃) — the active thyroid hormone, usually produced from thyroxine.

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.



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