



HYPERTHYROIDISM

Hyperthyroidism is associated with hypertension, coronary artery disease and heart failure, even 20 years after treatment with thyroid surgery

BACKGROUND

Hyperthyroidism (an overactive thyroid gland) is a condition in which excess thyroid hormone is produced. Patients with hyperthyroidism have increased risks of various cardiovascular problems, such as atrial fibrillation (an irregular heart rhythm), hypertension, coronary artery disease, stroke and heart failure. Although some studies have shown that treatment of hyperthyroidism with either antithyroid medications or radioactive iodine decreases these risks, the risks are still higher than average when compared to a person without hyperthyroidism. The aim of this study was to evaluate if these cardiovascular risks are also similarly elevated in patients who undergo thyroid surgery for the treatment of hyperthyroidism when compared to healthy individuals.

THE FULL ARTICLE TITLE

Ryödi E et al Cardiovascular morbidity and mortality in surgically treated hyperthyroidism—a nation-wide cohort study with a long-term follow-up. *Clin Endocrinol (Oxf)* 2014;80:743-50.

SUMMARY OF THE STUDY

This was a study that evaluated all the total thyroidectomies (removal of the entire thyroid) that were done for hyperthyroidism in Finland between 1986-2007. Each patient who had a total thyroidectomy for hyperthyroidism was compared to 3 healthy patients of similar age and gender who were living in the country at the same time. The researchers assessed the two groups for how frequently patients were hospitalized for various cardiovascular events and death.

Over 4,000 hyperthyroid patients who underwent thyroid surgery were studied. Most of them were women with an

average age of 46 years old and almost half of the patients had hyperthyroidism due to Graves' disease. The researchers found that hyperthyroid patients were 15% more likely to have a cardiovascular condition, compared to healthy individuals, with the risk most high in the five years before thyroid surgery was done. The most common cardiovascular conditions among the hyperthyroid group were hypertension, atrial fibrillation, and heart failure. However, the risks of coronary artery disease, stroke and death were the same between hyperthyroid patients and healthy individuals.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study shows that patients with hyperthyroidism have increased risks of certain cardiovascular conditions despite treatment with thyroid surgery, similar to the risks of those who get treated with antithyroid medications or radioactive iodine and that the risks remain high even 20 years after thyroid surgery. This information is important to patients with hyperthyroidism and the doctors who manage them, since attention toward decreasing other risk factors for cardiovascular conditions is even more important in these patients. The goal of achieving a heart-healthy lifestyle in hyperthyroid patients is essential, even in those with a history of treated hyperthyroidism, regardless of the specific type of hyperthyroidism.

— Angela M. Leung MD MSc

ATA THYROID BROCHURE LINKS

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

Thyroid Surgery: <http://thyroid.org/patients/patient-brochures/surgery.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.

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, continued

Thyroidectomy: surgery to remove the entire thyroid gland. When the entire thyroid is removed it is termed a total thyroidectomy. When less is removed, such as in removal of a lobe, it is termed a partial thyroidectomy.