



GRAVES' DISEASE

How safe is steroid treatment in thyroid eye disease?

BACKGROUND

Graves' disease is the most common cause of hyperthyroidism in the United States. Graves' disease can also affect the eyes, causing inflammation of the eyes, eye muscles and the surrounding tissues (thyroid eye disease). Symptoms of thyroid eye disease include dry eyes, red eyes, bulging of the eyes and double vision. Steroids are potent anti-inflammatory drugs and have been used for many years in the treatment of thyroid eye disease. There is still much information to be learned about the safety of steroids for this purpose. There is also a need to assess safety and effectiveness of oral versus intravenous (IV) therapy. This study was done to assess the safety of steroids for the treatment of thyroid eye disease.

THE FULL ARTICLE TITLE

Marcocci C et al. Fatal and non-fatal adverse events of glucocorticoid therapy for Graves' orbitopathy: a questionnaire survey among members of the European Thyroid Association. *Eur J Endocrinol* 2012;166:247-53. Epub November 4, 2011.

SUMMARY OF THE STUDY

This study was the analysis of the results of a questionnaire that was completed by 128 members of the European Thyroid Association who were asked about their practice in using steroids for the treatment of thyroid eye disease in patients with Graves' disease. In particular, the physicians

were asked about the number of fatal and non-fatal adverse effects to patients treated with either oral or IV steroids. The frequency of side effects was higher in patients treated with oral steroids vs. IV steroids (82% vs. 39%). However, there were more deaths in patients that were treated with IV steroids, as a total of 7 patients died: 4 of liver failure, 2 of stroke and 1 of pulmonary embolism. Two patients who were treated with oral steroids died, both due to stroke.

WHAT ARE THE IMPLICATIONS OF THIS STUDY?

Steroid therapy can be very beneficial to the patient suffering from thyroid eye disease. However, this study demonstrates that steroids should be reserved for patients with severe cases of thyroid eye disease because of the frequency of adverse effects. While patients who receive IV steroids may have less non-fatal adverse effects, they need to be monitored closely due to a higher risk of death. As with all medications, the beneficial effect of treating patients with the thyroid eye disease with steroids needs to be balanced with the risks of these powerful drugs.

— Heather Hofflich, DO

ATA THYROID BROCHURE LINKS

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

ABBREVIATIONS & DEFINITIONS

Thyroid eye disease (TED): also known as Graves ophthalmopathy or Graves' orbitopathy. TED is most often seen in patients with Graves' disease but also can be seen with Hashimoto's thyroiditis. TED includes inflammation of the eyes, eye muscles and the surrounding tissues. Symptoms include dry eyes, red eyes, bulging of the eyes and double vision.

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.

Steroids: these are powerful anti-inflammatory and immunosuppressive drugs. Steroids have been used for the treatment of many diseases associated with inflammation.