

Patients with hyperthyroidism caused by Graves' disease may have an enlarged thymus mimicking a thymic tumor

The background of the study. Some patients with hyperthyroidism caused by Graves' disease have an enlarged thymus, an organ in the chest that is large in infants and normally progressively decreases in size with age. Awareness of this finding is important; otherwise, the patient may be thought to have a tumor of the thymus and therefore to need surgery. This article describes a patient with Graves' hyperthyroidism who had a chest mass that proved to be a large thymus.

Case report. A 28-year-old woman had a history of weight loss despite increased appetite, palpitations, tremor, and thyroid enlargement. Physical examination revealed hyperthyroidism and a diffuse goiter. Her serum free thyroxine concentration was high and her serum thyrotropin (TSH) concentration was low. Computed tomography (CT) of the chest revealed a 3.5-by-3.0 cm mass between the lungs in the anterior chest in the location of the thymus.

She was treated with methimazole, and was euthyroid in several weeks. A biopsy of the mass revealed normal thymic tissue. Methimazole was continued and she remained euthyroid. Another CT scan three months later revealed that the mass had disappeared.

The conclusions of the study. Patients with hyperthyroidism caused by Graves' disease may have enlargement of the thymus, sufficient to be confused with a thymic tumor, that decreases in size with antithyroid therapy.