

Graves' disease with Unilateral Thyroid hypoplasia

Image (Resident and Student Section)

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A 45-year-old man was referred to us with a "thyroid nodule". There was history of palpitation, tremulousness and heat intolerance for 9 months, and weight loss of 5 kgs in the last 6 months. He was unaware of any eye symptom. There was no family history of thyroid disease. He had no addiction. On clinical examination, pulse rate of 116 beats per minute; blood pressure of 128/62 mm of Hg and BMI of 19.1 kg/m² were recorded. There was fine postural tremor. Right lobe

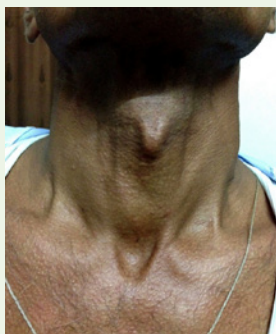


Figure 1: Enlarged right lobe of thyroid and isthmus.

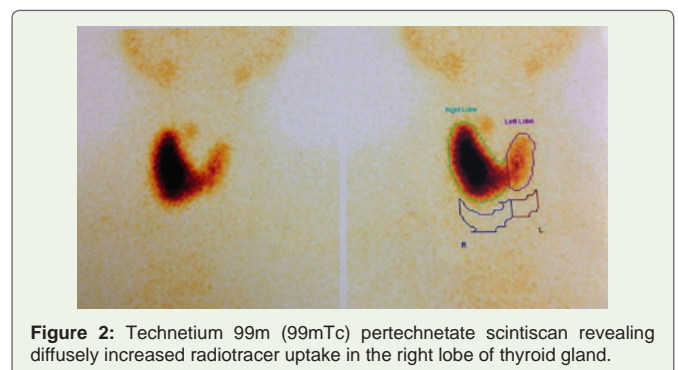


Figure 2: Technetium 99m (99mTc) pertechnetate scintiscan revealing diffusely increased radiotracer uptake in the right lobe of thyroid gland.

of thyroid and isthmus were diffusely enlarged and firm on palpation. However, the left lobe of thyroid gland was not palpable. Thyroid function tests revealed a serum TSH <0.01 mcIU/ml (normal 0.4-4), free T4 3.2 ng/dl (normal 0.8-1.8) and total T3 269 ng/dl (normal 70-190). Technetium 99m (99mTc) pertechnetate scintiscan revealed diffusely increased radiotracer uptake in the right lobe of thyroid gland. The left lobe was found to be hypoplastic. USG of thyroid revealed diffusely enlarged right lobe and a small left lobe. There was no nodule detected. Anti-TSH receptor antibody titre was 2.3 IU/L (> 1.7 – strongly positive). Diagnosis of Graves' disease was made and

after discussing various treatment options with the patient, he was put on carbimazole 30 mg per day.

Unilateral Thyroid hypoplasia (UTH) is a rare congenital anomaly. In overwhelming majority, the left lobe is affected. It usually occurs sporadically but few familial cases have been reported [1]. Most of such patients are euthyroid. The incidence of hypothyroidism was found to be higher than control subjects [2]. Association of Graves' disease with this malformation has rarely been reported.

Contributors

SNB and PPC contributed to diagnosis of patient, acquisition of data, concept and design of paper, drafting, critical revision of the

article and final approval. RB contributed to diagnosis of patient, concept and design of paper, drafting, critical revision and intellectual input and final approval of article.

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