



AN UNUSUAL CASE OF AUTOIMMUNE THYROIDITIS PRESENTING WITH HYPERSONMIA

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Abstract:

Autoimmune Thyroiditis is a chronic inflammatory disorder of the Thyroid gland. It is caused by the abnormal blood antibodies and white blood cell that damage the normal thyroid cells.. It may destroy the thyroid gland, causing thyroid hormone deficiency (hypothyroidism). Diagnosis of Autoimmune Thyroiditis is difficult. This disease can occur at any age, but is most often seen in middle-aged women.

It may also be associated with other autoimmune endocrine disorders. This disorder mostly incident in women. This paper reports a case of a 30 year old male with history of hypersomnia for past three months.

He had no other associated complaints. TFT revealed a raised TSH, low T3 & T4 (Hypothyroidism) with increased thyroid specific antibody. The patient was started on L-Thyroxine to which he responded well and became euthyroid after three months.

Introduction

Autoimmune Thyroiditis was first reported in Japan in 1912. The thyroid gland of those patients on histopathological examination was characterised by diffused lymphocytic infiltration, fibrosis and parenchymal atrophy. The disease is mostly associated with hypothyroidism. Previously the disease was diagnosed by pathological study after thyroidectomy. But nowadays FNAC and serological tests for antibodies are used to diagnose this disease.

Case Report

A 30 year old man presented with C/O hypersomnia for the past 3 months. The patient was evaluated both clinically and with relevant investigations. Clinically the patient had diastolic hypertension. He did not have any systematic illness. His blood was tested and his T3 was 65.4 ng/dl, T4 was 3.6 ng/dl and TSH was 217.308 mIU/ml. T3 and T4 levels were very low with elevated TSH levels, which indicated primary hypothyroid state.

Serum for thyroid peroxidase antibody by ELISA method was 546.8 IU/ml which is positive for Autoimmune Thyroiditis. The condition was finally diagnosed as Autoimmune Thyroiditis. The patient was started on treatment with L-Thyroxine 100µg. When his thyroid status was checked after three months of therapy the report was euthyroid state.

Discussion

Autoimmune Thyroiditis is a common autoimmune disorder. The etiology may be genetic, environmental or constitutional factors. Many studies have shown that there is increased frequency of Autoimmune Thyroiditis among family members of the patients with the disease.¹ The cytotoxic T-lymphocyte antigen-4 (CTLA-4) gene which codes a negative regulator of T-lymphocyte immune response has been reported to be associated with Autoimmune Thyroiditis.

It has been found that the incidence of Autoimmune Thyroiditis is proportional to the dietary iodine content. Recent invitro studies in mice have shown that high iodine doses may alone damage thyrocytes and enhance the disease progression.² Smoking is also identified as a risk factor for hypothyroidism.³

The incidence of Autoimmune Thyroiditis is around 0.3 – 1.5 cases per 1000 population per year.⁴ Usually the cases of Autoimmune Thyroiditis present with symptoms of hypothyroidism like fatigue, decreased heart rate, weight gain, problems with memory and concentration, depression, goitre, dry skin, extreme sensitivity to cold, constipation, irregular menstrual periods, hoarse voice etc. Rarely patients may also present with hypersomnia.⁵

Pathogenesis of AIT involves both humoral and cellular immune mechanisms. The thyrocytes express HLA-DR Ag and becomes the antigen presenting cell.

This on binding with thyroid specific CD4 positive T-helper cells indicates the formation of autoantibodies against the thyroid autoantigens.⁶ Tg positive patients mostly have antibodies to thyroid peroxidase (TPO) also. Anti TPO antibodies are complement fixing and so they are directly cytotoxic for thyrocytes. Most of the intrathyroidal lymphocytes are of CD8 phenotype having cytotoxic activity. Huber et al in their study showed that TPO-antibody is the most sensitive antibody for detecting autoimmune thyroid disease.⁷

In conclusion we suggest that autoimmune thyroiditis be considered in any patient with unexplained hypersomnia presentations. Therefore we recommend prompt evaluation of antithyroid antibodies in patients with unexplained hypersomnia symptoms even if standard thyroid function tests are normal.

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