

## **Abstract**

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Myasthenia gravis is an autoimmune neuromuscular disease. It is characterized by the presence of antibodies to acetyl-choline receptors. It can be isolated or associated with other auto-immune conditions. Graves' disease is an autoimmune disorder typically characterized by the presence of circulating autoantibodies that tie to and stimulate the thyroid hormone receptor. Coexisting myasthenia gravis and Graves' disease is a rare but well recognized condition. The pathology of this association has not been clearly established. I report here a case of a young male with known autoimmune thyroid disease who developed myasthenia gravis later.

A 27- year-old male presented to Teaching hospital Karapitiya with a two week history of fluctuating muscle weakness, difficulty swallowing, double vision and fluctuating ptosis. He had been diagnosed in the past with autoimmune thyrotoxicosis for which he was on carbimazole initially. On physical examination, he had homogenous goiter with thyrotoxic features and expressionless face, bilateral ptosis, diplopia, complex ophthalmoplegia, generalized muscle weakness more on proximal muscles. The laboratory investigation revealed high titer of acetylcholine receptor antibodies and electromyography supported the diagnosis of myasthenia gravis. Thyroid profile showed overt hyperthyroidism.

The treatment was commenced with Intravenous immunoglobulin (IVIg), acetylcholinesterase inhibitors and prednisolone. IviG was continued daily for five days along with pyridostigmine and prednisolone. Patient had marked improvement clinically and symptomatically third day onwards. The occurrence of autoimmune thyroiditis and myasthenia gravis in the same patient indicates a genetic predisposition to autoimmune diseases. Muscle weakness may be the first symptom of thyrotoxicosis as well as myasthenia gravis, so a distinction between the two autoimmune diseases can be difficult in some situations. The hyperthyroidism may precede myasthenic gravis as was the case of our patient.

**Keywords:** Thyroid disease, ophthalmoplegia, ptosis, myasthenia gravis, immunoglobulin