Myasthenia Gravis

Myasthenia gravis (MG) is characterized by muscle fatigability and weakness. The disease is not uncommon and occurs in about 150 per 1 million people worldwide.

MG affects people of all ages. Common symptoms of MG include ptosis, double vision, limb weakness, weakness in mastication, swallowing difficulty, and slurred speech. MG can be life-threatening because respiratory muscles including the diaphragm may also be affected. As MG can present with subtle symptoms in the early stages, the diagnosis may not recognized early and its treatment may be delayed.

Patients with MG have dysregulation in the immune system that causes impaired transmission of electrical impulses between motor neurons and muscles, which leads to muscle weakness seen in MG.

MG is also associated with disorders of the thymus gland. The thymus either develops abnormal lymphoid follicles in about 70% of MG patients (thymic hyperplasia) or develops into a tumor (thymoma) in about 10 to 15% of patients.

Members of the Division of Neurology, Department of Medicine, Faculty of Medicine, HKU are currently studying the relationship between thymomas and the presence of specific T-lymphocytes. As thymomas release specific T-lymphocytes into peripheral blood, the detection of these recently released specific T-lymphocytes may help to detect the small thymomas not seen on the CT scan, or to detect the recurrence of thymomas.