Lambert-Eaton Myasthenic Syndrome

Lambert-Eaton Myasthenic Syndrome (LEMS) is a disorder of the neuromuscular junction (the site where nerve cells meet muscle cells and help activate the muscles). It is caused by a disruption of electrical impulses between these nerve and muscle cells. LEMS is an autoimmune condition. In such disorders the immune system, which normally protects the body from foreign organisms, mistakenly attacks the body's own tissues. The disruption of electrical impulses is associated with antibodies produced as a consequence of this autoimmunity. Symptoms include muscle weakness, a tingling sensation (feeling) in the affected areas, fatigue, and dry mouth. LEMS is closely associated with cancer, in particular small cell lung cancer. More than half the individuals diagnosed with LEMS also develop small cell lung cancer. LEMS may appear up to 3 years before cancer is diagnosed.

TREATMENT

There is no cure for LEMS. Treatment is directed at decreasing the autoimmune response (through the use of steroids, plasmapheresis, or high-dose intravenous immunoglobulin) or improving the transmission of the disrupted electrical impulses by giving drugs such as di-amino pyridine or pyridostigmine bromide (Mestinon). For patients with small cell lung cancer, treatment of the cancer is the first priority.

WHAT WILL HAPPEN

The prognosis (likely outcome) for individuals with LEMS varies. Those with LEMS not associated with malignancy have a benign (not cancerous) overall prognosis. Generally the presence of cancer determines the prognosis.

RESEARCH BEING DONE

The NINDS supports research on neuromuscular disorders such as LEMS with the ultimate goal of finding ways to treat, prevent, and cure them.

Research is continually being done to learn more about this problem.

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