Open Peer Review on Qeios

Mitochondrial Myopathies

National Institute of Neurological Disorders and Stroke (NINDS)

Source

National Institute of Neurological Disorders and Stroke (NINDS). Mitochondrial Myopathies Information Page.

Mitochondrial myopathies are a group of neuromuscular diseases caused by damage to the mitochondria—small, energy-producing structures that serve as the cells' "power plants." Nerve cells in the brain and muscles require a great deal of energy, and thus appear to be particularly damaged when mitochondrial dysfunction occurs. Some of the more common mitochondrial myopathies include Kearns-Sayre syndrome, myoclonus epilepsy with ragged-red fibers, and mitochondrial encephalomyopathy with lactic acidosis and stroke-like episodes. The symptoms of mitochondrial myopathies include muscle weakness or exercise intolerance, heart failure or rhythm disturbances, dementia, movement disorders, stroke-like episodes, deafness, blindness, droopy eyelids, limited mobility of the eyes, vomiting, and seizures. The prognosis for these disorders ranges in severity from progressive weakness to death. Most mitochondrial myopathies occur before the age of 20, and often begin with exercise intolerance or muscle weakness. During physical activity, muscles may become easily fatigued or weak. Muscle cramping is rare, but may occur. Nausea, headache, and breathlessness are also associated with these disorders.