Alternating Hemiplegia

National Institute of Neurological Disorders and Stroke (NINDS)

Source

National Institute of Neurological Disorders and Stroke (NINDS). Alternating Hemiplegia Information Page.

Alternating hemiplegia is a rare neurological disorder that develops in childhood, most often before the child is 18 months old. The disorder is characterized by recurrent episodes of paralysis that involve one or both sides of the body, multiple limbs, or a single limb. The paralysis may affect different parts of the body at different times and may be brief or last for several days. Oftentimes these episodes will resolve after sleep. Affected children may also have abnormal movements involving stiffening or "dance-like" movements of a limb, as well as walking and balance problems. Some children have seizures. Children may have normal or delayed development. There are both benign and more serious forms of the disorder. Alternating hemiplegia is primarily caused by mutations in the ATP1A3 gene. Occasionally, a mutation in the ATP1A2 gene is involved in the condition. These genes provide instructions for making very similar proteins. Mutations in these genes reduce the activity of an enzyme called Na+/K+ ATPase, which affects the signals that control muscle movement. However, it not yet clear how the reduced enzyme activity leads to the symptoms of the disorder.