VIRTUAL MEDICAL PRACTICE, LLC

expanding genetic horizons……

Mitochondrial Disorders:
What happens when the cell's batteries run down?

Mitochondrial disorders are complex inherited disorders that affect the body's ability to adequately produce energy. These disorders affect 1 in 4,000 individuals and are difficult to diagnose and are often overlooked. Many patients are left for months or years to struggle with no answers, numerous difficulties, and with little support from the medical community.

Additionally, recent research indicates that mitochondrial dysfunction contributes to a number of well-known disorders including Parkinson's, Alzheimer's, Huntington's disease, ALS and Muscular Dystrophy as well as deafness, diabetes and heart failure.

When the mitochondria fail to function properly and the energy production inside of our body cells decrease, it is similar to a major city's power plant failing causing either isolated or wide spread problems. Normally, the human body breaks down foods to form energy packets known as ATP that are needed to perform all of its bodily functions. This ATP is created in the electron transport chain of the mitochondria or batteries of our body's cells.

Disorders affecting mitochondria result in decreased energy production that causes impairment of various body functions or even death. Affected individuals can show a wide range of symptoms including any combination of growth difficulties, developmental delays, seizures, vision and hearing problems, problems with temperature stability and irregular heart, kidney and liver function. Muscle weakness and muscle breakdown plague others.

The presentation and prognosis of a particular mitochondrial disorder can vary widely, even among affected individuals within the same family. However, in general, these diseases are progressive and usually result in significant disabilities and early death for affected individuals.

Unfortunately, there is no cure for mitochondrial disorders and treatment is limited and primarily focused on dealing with the problems that already exist.

Virtual Medical Practice's (VMP) mission is to extend the reach of specialized healthcare to an underserved population utilizing readily available and cost effective technology while continuing to provide patients the option to physically meet with our physicians in our clinical office when appropriate or desired. VMP's founder, Dr. Fran Kendall, has extensive experience in the diagnosis and management of children & adults with a wide array of inborn errors of metabolism, specifically mitochondrial & metabolic disorders. Dr. Kendall was trained and on staff at Boston Children's Hospital and Harvard Medical School for a number of years, was the previous 50% owner of a successful genetics laboratory/healthcare provider, currently serves on the Medical Advisory Board to MitoAction.org, is the local UMDF "Mito Champion" and is a frequently requested speaker. She has authored numerous research articles on various rare diseases that include mitochondrial disease and an array of other inborn errors of metabolism and has a long term interest in research and clinical aspects of metabolic disorders. She currently brings over 20 years of this vast experience to her patients at Virtual Medical Practice.

Mail: 5579 Chamblee Dunwoody Rd, Suite 110, Atlanta, GA 30338
Clinic: 3400 Old Milton Pkwy, Bldg A, Ste 500, Alpharetta, GA 30005
Voice: 404.720.0820 Fax: 404.601.9931 www.virtualmdpractice.com