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19 November 2009

To whom it may Concern;

Mrs. Catherine Horowitz is a 41 year old woman with a clinical history of myoclonus, movement disorder and early cognitive difficulties. Through extensive diagnostic evaluation we have recently diagnosed her with late-onset neuronal ceroid lipofuscinosis (NCL). This is often referred to as Kufs disease. This disorder is one of the NCL lysosomal disorders in which clinical symptomatology suggesting this disease is confirmed by identification of characteristic pathologic changes on biopsy. No biochemical markers have been identified to facilitate diagnosis.

Mrs. Horowitz's recently deceased father, August Abbatemateo, also had a progressive movement disorder and dementia. In her father, the diagnosis of Kufs was also made by pathologic recognition of lysosomal inclusions seen in these disorders. Together the data, from Catherine and her father, suggests that this is an autosomal dominant neurodegenerative disease in this family.

The NCL disorders are a group of genetically inherited neurodegenerative diseases exhibiting both genetic locus and phenotypic heterogeneity. In the rare late-onset form (Kufs) no gene(s) have yet been identified. Family studies reported in the literature, and known to me personally, suggest that both an autosomal dominant and an autosomal recessive form exist. The clinical phenotype in Kufs can be quite variant, usually has onset in the late 30s or early 40s, and can include abnormalities of movement, ataxia, seizures, cognitive (dementia) and/or neuropsychologic difficulties. Only rarely has retinal degeneration, and subsequent visual loss, been clinically evident in the late-onset form of NCL.

In order to understand the etiology of Kufs, the pathobiology of the cellular effects, and to develop more effective management and treatment, a number of research approaches are being pursued throughout the world. These research strategies include: genetic linkage studies (family, SNP) aimed at finding gene(s) responsible for this disorder; biochemical or protein work looking to identify the aberrant or missing protein(s); induced pluripotential stem cell (iPS) generation with a goal of establishing cell and neuronal culture model systems to study the biology of these disorders and to test hypothesis and possibly treatments; high throughput genomic screening/sequencing ; proteomic and metabolomic studies to try and identify changes in the disease that might highlight aberrant metabolic pathways primarily or secondarily important in the disease process. At the current time, unfortunately, management in Kufs disease remains symptomatic.

Sincerely yours,

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