Study finds genetic testing may help people with severe type of migraine

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People with a severe type of migraine in which one side of the body becomes weak should consider genetic testing, according to research that has found familial genes for this type of migraine in people who did not have family members experiencing the problem. The findings are published in the December 4, 2007, issue of *Neurology*, the medical journal of the American Academy of Neurology.

“Our findings have important clinical implications,” said study author Michel D. Ferrari, MD, PhD, with Leiden University Medical Centre in the Netherlands. “Since many people with this type of migraine are initially misdiagnosed and not given the proper treatment, understanding the genetic basis of this type of migraine may help clinicians in diagnosing and treating the problem. Most patients are initially diagnosed with epilepsy, stroke or other disorders and are treated accordingly with non-effective medications that are associated with a high risk of side effects rather than with effective agents to treat migraine.”

For the study, genetic testing was performed on 39 men and women with sporadic hemiplegic migraine, which is a rare, often severe subtype of migraine with aura in which attacks are associated with a weakness affecting one side of the body. The participants, who had no known family members with this type of migraine, were screened for mutations in the three known genes for familial hemiplegic migraine: the CACNA1A gene, the ATPIA2 gene, and the SCN1A gene.

The study found variants of these familial genes in 18 percent of the study participants. Variants in the ATPIA2 gene were the most prevalent.

Ferrari says screening for familial genes in people with this type of sporadic migraine may also help to enable counseling and prevent unnecessary treatment with potentially harmful drugs.

“Our findings reinforce the growing evidence that familial and sporadic hemiplegic migraine along with normal migraine have some shared gene pathways. Unraveling these pathways may help to identify new treatment options,” said Ferrari.

Source: American Academy of Neurology