Vascular Parkinsonism Mimics Array of Traits

BY KERRI WACHTER
Senior Writer

PORTO, PORTUGAL — Vascular parkinsonism displays a range of noncognitive symptoms, which explains why its diagnosis can depend on the bias of the specialist doing the evaluation, said Joseph Ghika, M.D., at the Fourth International Congress on Vascular Dementia.

The same group of symptoms might be referred to as vascular parkinsonism (or gait disorder) by movement disorder specialists, central incontinence by urologists, vascular depression by psychiatrists, apraxia of gait by neuropsychologists, gait disorder of hydrocephalus by neurosurgeons, cardiogenic dementia by cardiologists, senile gait disorder by geriatricians, and small- and/or large-vessel disease (or poststroke/multistroke dementia) by stroke specialists, said Dr. Ghika of the Centre Hospitalier Universitaire Vaudois in Lausanne, Switzerland.

Vascular parkinsonism accounts for 3%-6% of all Parkinson's disease (PD) cases. The evolution of vascular parkinsonism is more rapid than that of PD and may have a stepwise progression. Generally, patients with vascular parkinsonism are older than those with PD and have vascular risk factors. They are usually nonresponsive to dopa treatment.

Presentation may involve a number of symptoms that are not seen in other forms of cognitive impairment/dementia: gait disturbances (gait ignition failure, frontal gait disorder, frontal or subcortical disequilibrium), focal deficits, loss of sphincter control, emotional lability (forced laughter, pseudobulbar syndrome), and psychomotor slowing.

"It's a symmetrical axial/proximal Parkinson's that involves mostly the lower extremities," said Dr. Ghika. Patients tend to be nontremulous except in posture and can have a mixture of rigidity and spasticity, with axial and proximal predominance without cogwheeling.

Associated gait disorders develop early in the course of degeneration, often at the same time that impairment of executive function becomes apparent.

Focal neurologic deficits affect 34% of patients with vascular parkinsonism; 63% have brisk reflexes.

Patients have problems standing, starting to walk, and changing directions. Their steps are short and shuffling. Patients spread their feet in a wide base for standing and walking and turn without turning the trunk. Posture is stooped but without flexion at the hip or knee, unlike in PD. Patients have great difficulty getting up from a sitting position and are often unable to do so unassisted. There is marked retropulsion with a loss of protective/postural reflexes. Arm swing can be variable to increased. The hodgepodge of movement traits have hampered ongoing efforts to identify a characteristic pattern of gait disturbances for vascular parkinsonism. "It's a problem of ataxia and apraxia all together," said Dr. Ghika.

Corticobulbar/pseudobulbar syndrome affects more than half of patients with vascular parkinsonism, taking the form of emotional lability and/or forced laughter. Their faces often carry a "mask" of bewilderment. Their speech pattern is typically low, slow, and monotonous. Their speech may be dysarthric, very nasal, aprosodic, and monosyllabic. Their verbal communication may be aspontaneous, or they may be mute, stutter, or have palilalia. Normal olfaction is absent.

Urinary dysfunction/incontinence is also common; half of patients with vascular parkinonism experience detrusor hyperreflexia. Dyskinesias are common. Hemichorea-hemiballism may be bilateral. Patients often have myoclonus upon startling. They have postural (action) or Holmes tremors.

Focal neurologic deficits are quite common, affecting about 34% of those with vascular dementia. As many as 63% of those with vascular parkinsonism have brisk reflexes, by some estimates. Other pyramidal signs include synkinesias, clonus, and spasticity. Hemiataxia and hemianopia may be present.

It can be difficult to identify dementia due to vascular parkinsonism. The differential diagnosis includes hydrocephalus, other dementias (Alzheimer's disease, frontotemporal dementia, etc.), atypical parkinsonism (progressive supranuclear palsy, corticobasal ganglionic degeneration), idiopathic dopa-responsive PD, multiple sclerosis/leukodystrophies, other white matter diseases, and motor neuron disease. ■

Male Fragile X Carriers Face Progressive Tremors as Adults

BY LINDA LITTLE
Contributing Writer

GRAPEVINE, TEX. — Men who carry the fragile X syndrome gene may be at risk for progressive tremors and weakness as they age, said James Grigsby, Ph.D., at a meeting sponsored by the American College of Medical Genetics.

An estimated 750,000 men carry the gene for fragile X syndrome."Formerly, these individuals were thought to be unaffected," said Dr. Grigsby, director of the division of Health Care Policy and Research at the University of Colorado Health Sciences Center. "Men in later life are far more affected than women."

Epidemiologic studies now show that a high percentage of males develop fragile X–associated tremor-ataxia syndrome (FXTAS). The incidence in men now is thought to be between 1 in 250 to 1 in 813; in women the incidence is 1 in 250-259.

But clinical studies of men and women with the carrier status are revealing more about the neurologic signs and symptoms and are discovering distinct findings on the brains of carriers through MRI.

In one study of 40 men, more than half were affected after age 80; however, 7 (18%) had symptoms occur at age 50-59, Dr. Grigsby said. Syndrome characteristics in a study of 26 affected men included gait ataxia in 25 (96%), intention tremor in 18 (69%), lower extremity weakness in 14 (54%), lower extremity neuropathy in 16 (62%), bradykinesia in 15 (58%), rigidity in 9 (35%), dysarthria in 20 (77%), dysmetria in 24 (92%), bowel incontinence in 8 (31%) and bladder incontinence in 14 (54%), impotence in 21 (81%), cognitive deficit in 19 (73%), and heart failure in more than half.

"The clinical signs are similar to Parkinson's disease," Dr. Grigsby said. "In studying the cognitive aspect, we don't observe a high level of dementia, and the verbal IQ isn't affected. But there is impairment in working memory, speed and capacity of information processing, and executive cognitive functions."

Additionally, physicians are finding a high level of heart failure and hypertension in men with FXTAS, he said.

One study of 25 men showed the mean age of onset of FXTAS was 62 years. Many of the men had completed college, with a mean of 16 years of education, and they had a mean IQ of 102.

"Although there was a high number of college graduates in the group, the cognitive levels were less than expected of college graduates," he said.

Over time the men showed increased apathy, lowered verbal fluency, higher level of disinterest, inappropriate speech, irritability, and an inability to stick to the task at hand, as assessed by a number of tests, including the letter-number sequencing and digit span subtests of the Wechsler Adult Intelligence Scale, Version III.

"There also was a 50% decrease in short-term memory," according to Dr. Grigsby, reporting on unpublished data

On MRI, there are white-matter lesions and atrophy of the cortex, brainstem, and cerebellum but no evidence of inflammation, Dr. Grigsby said. ■

Tourette's Does Not Preclude Use of Stimulants to Treat Attention Deficits

BY DOUG BRUNK
San Diego Bureau

YOSEMITE, CALIF. — Some parents of children with Tourette's syndrome hesitate to put them on a class II stimulant for attention deficit disorder.

Speaking at a pediatric conference sponsored by Symposia Medicus, Robert S. McKelvey, M.D., noted: "When I was in training, if you had tics, you had a history of tics, or even a family history of tics, we didn't start you on stimulant medication," he said.

Both stimulants used to treat ADHD have short half-lives, with maximum benefit within 2-4 hours.

DR. McKELVEY

"Now there are a couple of studies that show that if you have tics and you take stimulants, it's probably OK as long as the tics don't worsen. In many cases, the tics seem to [decrease in severity]."

Drug preparations in the stimulant class are derived from methylphenidate or dextroamphetamine. Methylphenidate is more widely used in the United States, but Dr. McKelvey noted that both agents are equally effective.

A key point to remember about both agents is that they have very short half-lives. Maximal benefit on behavior occurs in 1-2 hours for agents derived from methylphenidate and 3-4 hours for agents derived from dextroamphetamine.

The sustained-release formulations appear to be as effective as the standard short-term formulations. The doses vary with the individual. There is some thought that academic performance (such as that associated with inattention) may respond to a lower dose than do restlessness and impulsivity, he said.

New, long-acting preparations enable once-daily dosing. These include Concerta, Metadate CD, Adderall XR, MethyPatch, and Focalin.

The most common adverse effect of stimulants is decreased appetite, which occurs in about 80% of children who take them. "The decreased appetite and weight loss can be stunning in some kids," he remarked. "I've seen some very skeletal-looking little boys, and it can make you quite nervous."

Long-term stimulant use may result in about a 1-cm decrease in height per year during the first 3 years of use, "but some of that is caught up," Dr. McKelvey said. "More recent studies suggest there is perhaps a 1-cm decrease [in height] overall if you take stimulants long term."

Insomnia is another common side effect, "so you tend to give it earlier in the day. You have to monitor heart and blood pressure.

"The things you're monitoring are height, weight, and blood pressure. It's pretty straightforward, but yearly, I usually check the white blood cell count," Dr. McKelvey said. ■