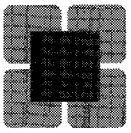

WILLIAM S. WILKE, MD, EDITOR

# PARKINSON'S DISEASE: WHERE DO WE STAND?

Parkinson's disease is thought to result from the loss of a critical percentage of dopamine-producing neurons in the substantia nigra. This loss, associated with progressive aging, proceeds at a rate estimated to be 10% to 13% per decade. The first symptoms appear after approximately 80% of these neurons have been lost.

Why the disease develops in some people but not in others is unknown. Current thinking suggests that the "normal" age-related attrition of dopamine-producing neurons may be accelerated in people who have a genetic susceptibility. Peccant environmental neurotoxins are the accelerating factors in this theory.

## DIAGNOSTIC PRINCIPLES

The diagnosis is suggested when a patient displays two of the three classic signs of Parkinson's disease (tremor, rigidity, and bradykinesia) and exhibits a sustained, significant response to levodopa therapy (Gibbs criteria). Approximately 70% of patients initially present with a pill-rolling rest tremor in one hand.

It is important to distinguish Lewy-body Parkinson's disease from parkinsonism. Considerations here include: (1) the use of drugs that produce extrapyramidal manifestations by blocking or depleting dopamine, and (2) the presence of other unusual diseases with extrapyramidal manifestations.

## TREATMENT

Although a cure for the disease has not been found, certain drugs can relieve symptoms and may actually slow disease progression.

As soon as the diagnosis is made, selegiline (Eldepryl) therapy should be initiated as a "neuroprotective" measure. Anticholinergics, antihistamines, and amantadine are also useful in the early stages of symptomatic treatment. Anticholinergics often help to alleviate tremor, frequently the most difficult symptom to suppress. Amantadine is more potent than the anticholinergics, but its efficacy often diminishes within a few months.

With the passage of time, patients invariably progress to the point where levodopa therapy is required. In the United States, levodopa-carbidopa (Sinemet, Sinemet CR) is employed in a variety of dosage regimens. There is emerging evidence that, due to the short half-life of levodopa, standard levodopa-carbidopa therapy produces unphysiologic "pulses" of dopamine in the striatum. The new controlled-release form of levodopa-carbidopa may be more "physiologic": that is, it produces a more sustained and tonic level of dopamine. Studies are under way to see if patients treated with the controlled-release preparation early in the disease course have a more prolonged response period with delayed emergence of treatment complications. When complications (such as "wearing-off" phenomena and dyskinesias) do appear, some reduction in levodopa dosage is often indicated and a dopamine agonist such as bromocriptine (Parlodel) or pergolide (Permax) should be added to the regimen.

Other medications will soon be available for testing that are believed to function as neuroprotective agents and slow down the rate of disease progression. Perhaps the next drug to enter controlled studies in this area will be one of the lazaroids, a class of drugs being developed by Upjohn Laboratories.

Fetal tissue transplantation is under intense study. The coming years will yield information on the ultimate place this modality has in the therapy of the disease described so long ago by James Parkinson.

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SUGGESTED READING

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# IRRITABLE BOWEL SYNDROME: NEW PERSPECTIVES ON MANAGEMENT

Irritable bowel syndrome is the most common disorder of the gastrointestinal tract, yet it is rarely discussed at professional conferences. Until about 10 years ago, it was generally thought of as a classic psychosomatic disorder. However, research during the past decade has shown it to be a motor disorder in which a number of factors may play a role. Meals, intraluminal distention, gastrointestinal and other hormones, and pharmacologic agents all can have a measurable, recordable effect on bowel motility. Stress and psychosocial factors are but two of the many stimulae affecting irritable bowel syndrome.

Patients with irritable bowel syndrome are often relieved to hear that they have a "real" illness—that the problem is not in their heads. This makes them more willing to accept the fact that their symptoms are susceptible to stress, and thus, they are more willing to try stress management techniques.

The physician should use the term *irritable bowel syndrome* to describe the syndrome to the patient and should avoid terms such as nervous colitis, mucus colitis, and unstable colitis. These other terms may frighten patients by mistakenly implying that inflammation exists or that they have ulcerative colitis, which carries with it the possible complication of cancer or the possible need for colectomy.

## DIAGNOSIS

Irritable bowel syndrome is twice as likely to affect women as men, and the incidence is higher in whites than nonwhites, and in Jews than non-Jews. The disease usually first presents late in adolescence or early in adulthood, and the onset is gradual. Patients who report initial symptoms later in life or who remember a specific time when the illness first occurred probably do not have the syndrome.

The characteristic features of the disease are altered bowel patterns consisting of small-volume stools (less than 200 mL) with either diarrhea or constipation. The symptoms may vary considerably among patients, but a pattern will be constant for an individual. It is important to recognize changes in a particular patient's pattern of symptoms because this may indicate the presence of a concomitant disease.

Sleep is rarely disturbed by the symptoms. Patients typically complain of lower abdominal pain, abdominal distention, and increased belching and flatulence. The symptoms are aggravated during prolonged periods of stress. A tender, palpable sigmoid cord is indicative of irritable bowel syndrome; weight loss, fever, and a progressive course argue against the diagnosis.

Laboratory findings are generally normal. An elevated sedimentation rate, leukocytosis, or blood and fat in the stool suggest another underlying disorder. Parasites, anemia, and inflammation should be ruled out. Approximately 40% of patients with irritable bowel syndrome also have lactose intolerance. To determine if patients have both conditions, they should be put on a lactose-free diet for 2 weeks. Symptoms will improve but will not be entirely relieved. The diet should then be liberalized until a threshold is found.

## KEYS TO TREATMENT

Successful treatment depends on an interested and involved physician who earns the confidence of the patient and deals with any of the patient's concerns or misconceptions. The physician should educate the patient on the symptoms and prognosis of irritable bowel syndrome, emphasizing that while the disease is chronic, it is not serious.

Dietary management and behavioral therapy are the first-line treatment. A high-fiber diet should be prescribed. Fifteen percent of patients will be unable to tolerate the fiber, but the rest will benefit, although approximately half of these will experience bloating and discomfort for the first few weeks on the diet. Hydrophilic colloids may also be useful and should be prescribed in conjunction with meals. Psychological management should consist of identifying anxiety, depression, or other factors that precipitate symptoms and then helping the patient develop coping techniques. Since social reinforcement may perpetuate illness, the patient's family should be encouraged to ignore illness-oriented be-