To the Editor:

We had observed that parkinsonism, especially without tremor, was frequently unrecognized and, therefore, often not considered when patients were admitted to the hospital after a fall. This led to our interest in the problem of underdiagnosis of Parkinson’s disease (PD) and related disorders. Our interest grew further with our work on elderly patients with behavioral problems who were treated with antipsychotic drugs. Although the newer “atypical” antipsychotic agents are “relatively” free of parkinsonian side effects, some induce or worsen preexistent parkinsonism (1), leading to falls, with the mechanism of the worsening gait not evident to the caregivers. Fall is the leading cause of death from injury in
the elderly in America (2). Similarly, in a prospective 1-year study of PD patients identified in a British medical registry, 68% fell at least once (3). Several studies have been performed to identify risk factors and interventions to reduce falls (4), as this is a potentially preventable cause of morbidity and mortality in the geriatric population (5).

There are little data concerning unrecognized neurological disorders. The only data we could find on unrecognized parkinsonism deal with neuroleptic-induced parkinsonism assessed by psychiatry residents (6,7), and two other prospective studies in a geriatric unit (8) and a chronic care facility (9).

We therefore sought to determine the frequency with which the diagnosis of parkinsonism was being missed in a community hospital setting.

In a community teaching hospital with residency training programs in internal medicine and family medicine, all written in-patient consultations performed over a 2-year period by two neurologists with expertise in parkinsonism (J.H.F. and H.H.F.) were reviewed. All consult notes from patients with a known diagnosis of PD, parkinsonism, or gait disorders were excluded. When the first recognition of parkinsonism or gait disorder occurred during the admission, the consult was included in this survey. The record was then examined to determine if the parkinsonism was also recognized or suspected by any medical staff prior to neurology consultation and if a gait evaluation was documented.

Sixty-seven consultations identified previously unrecognized parkinsonism and/or gait disorders. Forty-three (64%) patients had parkinsonism and the rest had other types of non-parkinsonian gait disorders. Five had “probable” PD, defined as a progressive, asymmetric syndrome with three of the four cardinal features of resting tremor, bradykinesia, rigidity, and postural instability, and without signs or symptoms suggestive of other causes of parkinsonism. The rest had “possible” PD (a less-firm diagnosis due to incomplete histories of dopamine receptor blocking drug exposure or syndrome progression, or inability to fully evaluate the patient), presumed vascular parkinsonism, “parkinson-plus” syndromes, normal pressure hydrocephalus, and “lower body parkinsonism.”

The presence of parkinsonism as a syndrome was recognized or suspected by the medical team in only 45% (19 of 43) of cases. It was noted by attending medical physicians in 11 patients, senior residents in 6, and medical interns in 5 cases. Chart notes failed to document a gait examination in 30 of 67 patients.

Parkinsonism is not recognized in over half of the patients admitted to our acute care medical service even when a neurological problem prompting a consultation is noted. Moreover, gait examination is not performed in 45% of the cases. We find this surprising, as we believe our housestaff have significant exposure to parkinsonism and gait disorders. Neurology is a required rotation for our internal medicine residents, and the region’s Movement Disorders Center is located at the hospital.

In psychiatric patients, only 11 of 26 (42%) patients with neuroleptic-induced parkinsonism had been identified by psychiatry residents as having the syndrome (7). In another study (6), neuroleptic-induced parkinsonism was recognized in 17 of 29 (59%) patients by psychiatry residents. These numbers are similar to our findings despite the difference in patient and doctor populations.

In the geriatric population, a prospective study of all new cases of parkinsonism referred to a geriatric unit found 95 patients (9%) with parkinsonism, but only 25% of referring physicians had recognized the syndrome (8). In a movement disorders survey of Canadian chronic care facilities, 100% (2 of 2) of drug-induced parkinsonism and 25% (1 of 4) of PD cases were previously undiagnosed (9).

Our review has the obvious limitation of small numbers. Also, the reasons for neurological consultation were highly variable, often not for reasons related to the parkinsonism, and at times unrelated to the reason for hospital admission. For example, a patient with a transient ischemic attack or stroke was also noted to have PD, or a patient with chest pain also was dysarthric.

We believe that larger studies, particularly of the elderly in acute- and long-term care facilities, are needed to confirm or refute our preliminary findings. If confirmed, heightened surveillance and educational programs will be needed to improve quality of life and reduce the risk of falls.

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REFERENCES