New Tool Screens for Impulse Disorders in PD

BY BRUCE JANCIN

ISTANBUL, TURKEY — The first-ever brief screening questionnaire for impulse-control disorders in patients with Parkinson's disease is now available.

The self-administered Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease (QUIP) takes but several minutes for patients to complete. QUIP is the product of a collaboration between many of the leading investigators in the field of impulse-control disorders (ICDs) in Parkinson's disease, who recognized that it's impractical for busy office-based practitioners to find time to conduct lengthy diagnostic interviews with all of their patients who have Parkinson's, Dr. Daniel Weintraub explained at the annual congress of the European College of Neuropsychopharmacology.

The need for a brief screening instrument was highlighted in a landmark cross-sectional study led by Dr. Weintraub, which demonstrated that ICDs are relatively common in the setting of Parkinson's disease, being present in one in six patients.

Fourteen percent of the 3,090 Parkinson's disease patients under age 75 surveyed at 46 U.S. and Canadian movement disorder centers had at least one of the four major ICDs, involving pathological gambling, compulsive buying, binge-eating behaviors, and compulsive sexual behavior. Comorbidity was common: Among patients with an ICD, 36% had more than one, added Dr. Weintraub, a psychiatrist at the University of Pennsylvania, Philadelphia.

Although ICD is the generally accepted term for these behaviors, they have also been referred to as appetitive behaviors or behavioral addictions. These are not life-long behaviors in affected individuals; rather, they are changes that emerge during the course of Parkinson's disease and cause significant and often enduring distress or impairment.

"These ICDs are not pleasurable activities anymore, but something they feel they need to do," Dr. Weintraub explained.

Pathological gambling was the first ICD to be described in patients with Parkinson's disease when the association was initially recognized half a dozen years ago, but in fact all four ICDs were roughly equally prevalent in the North American survey.

As a screening tool, the emphasis in QUIP is on maximizing sensitivity at the expense of specificity.

DR. WEINTRAUB

In a multivariate analysis, by far the strongest correlate or risk factor for ICDs was being on dopamine-agonist therapy, which carried a 2.7-fold increased risk. Indeed, the population-attributable risk of dopamine-agonist treatment was 49%, meaning nearly half of all ICDs could be attributed to the drug therapy.

The ICD risk was not affected by the specific agent prescribed, nor was it dose dependent.

Other independent correlates with ICDs included current smoking, age 65 or younger, levodopa therapy, being unmarried, and living in the United States. Specifically, Americans had higher rates of compulsive buying and gambling, which Dr. Weintraub attributes to the prevailing social/cultural milieu.

A family history of gambling problems was associated with increased rates of all of the ICDs except sexual behaviors. There was no gender difference in the overall rate of ICDs; however, compulsive sexual behaviors were vastly more common among men, and binge-eating behaviors and compulsive buying were significantly more common in women.

Physicians can gain access to the QUIP screening tool via its recently published validation study (Mov. Disord. 2009;24:1,461-7), which showed that a shortened version—the QUIP-S—containing 13 yes/no questions had a 94% sensitivity for detection of ICDs, nearly equal to that of the full 30-question version.

As a screening tool the emphasis in QUIP is on maximizing sensitivity at the expense of specificity. A positive result warrants a follow-up clinical interview to confirm the patient actually has an ICD, Dr. Weintraub stressed.

Physicians have an obligation to make their patients with Parkinson's disease aware that ICDs are a potential side effect of dopamine agonist therapy, and to monitor them for the emergence of these complications as part of routine clinical care. The same goes for psychiatrists who are exploring the use of these drugs for treatment of depression. The QUIP is intended to assist in that routine monitoring, he said.

He added that QUIP also might end up having a role in screening patients with disorders other than Parkinson's disease who are exposed to dopaminergic therapy. Dopamine agonists are now first-line therapy for restless legs syndrome, and although the doses used are generally considerably lower than in Parkinson's, some emerging evidence suggests that treated RLS patients may also have an increased prevalence of ICDs (Parkinsonism Relat. Disord. 2008;14:28-32).

"Restless legs syndrome is a much more common diagnosis than Parkinson's disease, so I suspect we'll see more research in this area," the psychiatrist observed.

Dopamine agonists are also seeing increasing use in patients with fibromyalgia. In one report, 1,356 of 3,006 fibromyalgia patients had taken at least one dose of a dopamine agonist, and 21 developed compulsive gambling, shopping, or both after taking a mean of 4.5 mg of pramipexole (Mirapex) at bedtime for 14.4 months. The compulsions resolved within 3-10 days after a monitored 7-day drug taper and discontinuation in 19 of 21 patients and by 3 months in the others.

The investigators concluded that "compulsive gambling and shopping have become important yet unexpected concerns related to use of dopamine agonists for patients with fibromyalgia and their treating clinicians" (J. Gambl. Stud. 2009;25:425-31).

The four major ICDs are listed under different diagnostic categories in DSM-IV. As a psychiatrist, it's fascinating to consider that the dopaminergic system links such diverse behaviors, Dr. Weintraub observed.

The North American survey of Parkinson's disease patients was funded by Boehringer Ingelheim, which supplied Dr. Weintraub with grant support and consulting fees. ■

Beta-Blockers May Cut Mortality in Patients With TBI

BY KERRI WACHTER

PITTSBURGH — Beta-blockers may have a protective effect in patients with traumatic brain injury, significantly reducing mortality, based on a retrospective study of more than 2,000 patients.

Although patients on beta-blockers in this study were older and more severely injured than were those not taking beta-blockers, mortality rates for the two groups were similar, Dr. Thomas J. Schroeppel said at the annual meeting of the American Association for the Surgery of Trauma. "This simple and inexpensive intervention may have a profound effect on outcome in these severely injured patients."

Dr. Schroeppel and his coinvestigators reviewed the trauma registry at an urban level 1 trauma center for blunt traumatic brain injury (TBI) from January 2005 to December 2007. Patients who received at least one dose of beta-blockers were identified on the basis of the hospital pharmacy order database.

The researchers identified 2,601 patients with blunt TBI, of which 510 (19.6%) had received at least one dose of beta-blockers. The primary indication for beta-blocker use was hypertension. A total of 18% of patients were already on beta-blockers when they entered the hospital. There was no difference in mortality between patients already on beta-blockers at admission and those who got them afterward, according to Dr. Schroeppel, assistant professor of surgery at the University of Tennessee in Memphis.

Overall, the TBI patients were predominantly male (80%) with a mean age of 41 years, a mean admission Glasgow Coma Scale (GCS) of 11, and a mean Injury Severity Score (ISS) of 26. Overall mortality was 16%, Dr. Schroeppel said.

Patients on beta-blockers were significantly older (51 years vs. 38 years) and had significantly more severe head injury, measured by the head Abbreviated Injury Score (4.1 vs. 3.8) and the GCS (10 vs. 11). Significantly more patients on beta-blockers required transfusions than did the control group (66% vs. 27%). In addition, patients on beta-blockers had longer hospitals stays (28 days vs. 11 days) and nearly twice the incidence of ventilator-associated pneumonia, compared with the control group (48% vs. 27%).

Patients on beta-blockers were significantly older and had significantly more severe head injury, as measured by the head Abbreviated Injury Score and the Glasgow Coma Scale.

Nonetheless, the 15% mortality rate among patients on beta-blockers was not significantly different from the 16% rate among controls.

Using multivariate logistic regression analysis to adjust for age, ISS, admission GCS, and transfusions, the researchers found that the use of beta-blockers was associated with an odds ratio for mortality of 0.36.

In subsequent analyses, the researchers excluded patients who died or had care withdrawn within the first 24-48 hours after admission in order to eliminate any potential survivor bias (i.e., only those who lived long enough received their beta-blockers). This showed a significant odds ratio for mortality of 0.37 in beta-blocker users. Likewise, after exclusion of patients who died or had care withdrawn within the first 24 hours, the patients taking beta-blockers had a significant 0.67 odds ratio for mortality. However, after the patients who died or had care withdrawn within the first 48 hours were excluded, the odds ratio for mortality was 0.77 with beta-blocker use, not a significant difference.

Catecholamine surge following TBI is associated with infectious morbidity and potentially preventable mortality. Previous studies have supported the protective effect of beta-adrenergic blockade in patients with TBI, which decreases cerebral metabolism, vasospasm, and oxygen consumption.

The researchers had hypothesized that suppression of the catecholamine surge in multiply injured TBI patients with beta-adrenergic blockade decreases mortality.

Dr. Schroeppel reported that he has no relevant financial relationships. ■