

# Depression Tied to Poor Adherence to Cardiac Rx

Results of two studies show that use of aspirin and  $\beta$ -blockers was lower in depressed patients.

BY MIRIAM E. TUCKER  
Senior Writer

VANCOUVER, B.C. — Depressed patients with coronary artery disease are less likely to take prescribed medications than are those who are not depressed, Karina W. Davidson, Ph.D., and Mary Whooley, M.D., reported in separate presentations at the annual meeting of the American Psychosomatic Society.

The findings from two large trials both suggest that medication nonadherence is one possible mechanism by which depression adversely impacts cardiovascular disease outcome, the investigators said.

Dr. Davidson, of Columbia University, New York, reported her findings from the Coronary Psychosocial Evaluation Study, funded by the National



Heart, Lung, and Blood Institute. Unlike previous adherence studies that have relied on patient self-reports, this one employed the Medication Event Monitoring System, in which an electronic device is stored in the cap of a pill bottle that records the date and time the container is opened.

The study involved 65 patients with acute coronary syndrome (ST- and non-ST-elevation myocardial infarction or unstable angina) who were prescribed a daily dose of either 81 mg or 325 mg of aspirin and were given a 90-day supply upon hospital discharge. Pill data were downloaded at 1-month and 3-month follow-up visits.

A total of 29 patients were considered nondepressed, having scored 0-4 on the Beck Depression Inventory (BDI) at baseline (in the hospital 1 week after the initial cardiac event). Another 17 patients who scored 10 or greater on the BDI at baseline but subsequently dropped below a score of 10 at 3 months were classified as "remittent depressed," while the remaining 19 patients who scored 10 or above on the BDI at both baseline and 3 months were classified as persistently depressed.

The persistently depressed patients were more likely than were the other two groups to be female and Hispanic, and to have lower levels of education and family income. All three groups were similar with regard to age, race, and current employment, she said.

Adherence—defined as the percentage of days that the correct dose of aspirin was taken—was 67% for the persistently depressed group, compared with 86% for the remittent depressed and 87% for the nondepressed patients. The difference between the persistent and remittent groups was not explained by baseline BDI severity, which differed only slightly (17 per-

sistent vs. 15.06 intermittent, compared with 1.9 in the nondepressed). Reports of side effects to aspirin did not differ between the groups.

"Persistently depressed patients are the ones uniquely not taking their medication," Dr. Davidson noted, adding that the results are particularly noteworthy given that the aspirin regimen is a once-daily pill. "This is the simplest, easiest medicine for patients to take, [yet] the persistently depressed are taking it two-thirds of the time they're supposed to."

In the other study, presented by Dr. Whooley, depressed heart disease patients tended to skip prescribed  $\beta$ -blockers.

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The cross-sectional data came from the Heart and Soul Study, a cohort investigation of potential mechanisms linking depression and cardiovascular outcomes. Of 1,024 patients with known coronary disease, 940 were taking one or more cardiac medications, including  $\beta$ -blockers, angiotensin-converting enzyme (ACE) inhibitors/angiotensin receptor blockers (ARBs), aspirin, and/or statins.

All of the patients had stable disease, with none having had an acute coronary syndrome in the previous 6 months, noted Dr. Whooley, who is with the departments of medicine, epidemiology, and biostatistics at the University of California, San Francisco.

Current major depression—as measured by the Diagnostic Interview Schedule and the Patient Health Questionnaire—was present in 22% (204) of the 940 patients.

Those with depression were younger (62 vs. 69 years), more likely to be female (27% vs. 13%), and to be current smokers (31% vs. 16%). The groups were similar with regard to race, education, proportion with MI (52% depressed/57% nondepressed), and were taking similar numbers of cardiac medications (2.6 depressed/2.8 nondepressed).

Patients were considered adherent if they said they took their medications as prescribed "all" or "nearly all" of the time. Those who took their medications "most," "about half," or "less than half" of the time were classified as nonadherent.

Fourteen percent of depressed patients reported nonadherence, compared with 5% of the nondepressed, and the percentage reporting nonadherence increased with the number of depressive symptoms. After adjustment for several factors including race, education, and current angina, depressed patients were more than twice as likely to report not taking their medication as prescribed, Dr. Whooley said. ■

# Depression Onset, Recurrence Predict Medication Response After Acute Coronary Event

BY MARY ELLEN SCHNEIDER  
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ATLANTA — Psychiatrists treating depression associated with an acute coronary event should look to severity of a depressive episode, recurrence of major depression, and the onset of depression prior to hospitalization as predictors of drug benefit.

Most clinicians will typically consider severity in evaluating whether to treat depressed patients, but prior episodes of depression and the timing of the onset of the present episode are also important factors in assessing the possible success of drug treatment, Alexander H. Glassman, M.D., said at the annual meeting of the American Psychiatric Association.

These "two historic considerations, [which] most clinicians never use in deciding who to treat, have a very strong impact on who's going to have a drug response," said Dr. Glassman, who is professor of clinical psychiatry at Columbia University, New York.

Even without proof of reduced mortality, depression associated with an acute coronary event can be safely and effectively treated, he said.

Dr. Glassman pointed to the results from the Sertraline Antidepressant Heart Attack Randomized Trial (SADHART), which looked

at the effects of sertraline versus placebo in patients who suffered from depression that was associated with acute MI or unstable angina (JAMA 2002;288:701-9).

Dr. Glassman was a member of the steering committee for SADHART and has been a consultant for Pfizer, which markets sertraline (Zoloft).

The trial included 369 patients who were given a 2-week single-blind placebo run-in and then randomly assigned to receive sertraline or placebo for 24 weeks.

The patients selected for SADHART were not seeking psychiatric treatment and, as a result, the sample had much milder depression and depressive episodes that were shorter than would normally be expected in a typical drug trial.

The effect of the drug was modest in the overall sample, but for those patients with recurrent depression—about half of the sample—the results were dramatically different, Dr. Glassman said at the meeting.

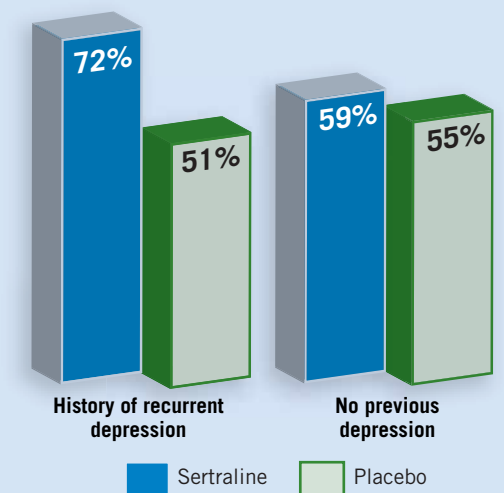
Of those patients with no prior episodes of depression, about 59% responded to the drug, compared with 55% on placebo.

In the case of patients with any recurrent depression, however, there was a very real difference, with 72% getting better on the drug versus 51% on placebo.

The SADHART study also showed that more than half of the cases of depression began before hospitalization for the coronary event. Of those patients whose depression began before hospitalization, 93% began more than a month before and could have contributed to the heart attack, Dr. Glassman said.

Similarly, the time of onset was also a predictor of drug response. The SADHART study showed that, of those patients who had depression onset in the

Patients Who Responded to Tx for Depression After a Coronary Event



hospital, there was no drug-placebo difference.

In the group with earlier onset of depression, though, 63% responded to the drug, compared with 46% on placebo, he said.

When the patient had both prior history of depression and onset before hospitalization, the drug was effective in 73% of patients, compared with 43% for placebo.

Even though the evidence that depression is a risk factor for cardiovascular events is overwhelming, specialists outside of psychiatry have been slow to pick it up.

Academic institutions are just beginning to recognize it as a risk factor, and in the general community hospital setting, recognition is poor, Dr. Glassman said.

There is more to the story, however: Those in other areas of medicine may be overlooking depression, but psychiatrists generally don't ask patients about their medical risk factors, he said.

"We see patients in our office all the time who are depressed, and I'll bet that the majority of people in this room can't tell if all their patients are smokers or not," Dr. Glassman said. ■