

## **CARDIOVASCULAR DISEASE**

### **Do ICD Shocks Cause Patient Anxiety?**

Recent studies have suggested that patients with an implantable cardioverter-defibrillator (ICD) commonly experience anxiety—with 13% to 38% of them experiencing the problem to a clinically relevant degree. Most studies have focused on the electric shocks delivered by ICDs as a possible cause of this anxiety; about half of patients with an ICD report having experienced painful shocks, and 40% to 60% of them report being afraid of shocks. But ICD activity actually may play little to no role in patients' anxiety, according to researchers from University of Würzburg, Würzburg; General Hospital of Freudenstadt, Freudenstadt; Heart-Centre Bodensee, Konstanz; and University of Frankfurt, Frankfurt; all in Germany.

On two occasions, the researchers used multiple questionnaires to assess a broad variety of anxiety aspects in 35 patients with an ICD. Patients were given the first assessment two to 88 months after ICD placement and the second assessment about 30 months later. The researchers then looked for relationships between the patients' scores on the first assessment, their scores on the second assessment, and their experiences with ICD-delivered shocks and antitachycardia pacing (ATP) during the period in between the two assessments.

The results showed no connection between anxiety and ICD activity. Patients with and without shock experiences had similar scores on both assessments, as did patients with and without ATP experiences. In addition, the researchers report finding remark-

able stability in the patients' anxiety levels, on both an interindividual and an intraindividual basis, from the first assessment to the second one. The only statistically significant changes were slight reductions in trait anxiety and avoidance behavior with the second assessment—which the researchers say may “reflect an adjustment of patients to their ICD device.”

Although there was considerable variety in the amount of time that elapsed between patients' ICD placement and their first assessment, the researchers say that this factor did not influence their findings significantly. They note that the first six months of implantation are considered “the crucial time of adjustment,” that six of the patients took their first assessments during this time, and that these patients' scores did not differ from those of the other patients in the study.

Source: *Heart Lung*. 2007;36(2):87–95.

## **NEUROLOGY**

### **Using the Glasgow Coma Scale to Predict TBI Outcomes**

Since 1974, clinicians have used the Glasgow Coma Scale (GCS) to evaluate and describe patients' degree of altered consciousness or coma after head injury. Over the years, numerous studies have investigated the ability of the GCS to predict outcomes in patients with traumatic brain injury (TBI). But variations in design and methodology pose a challenge in interpreting their results.

In order to present a useful summary of the predictive abilities of GCS in patients with TBI, therefore, a research coordinator from MetroHealth

Medical Center in Cleveland, OH performed a systematic review of all relevant studies dating back to the introduction of the GCS. She found that GCS scores predict TBI outcomes most effectively when they are used in conjunction with patient age and pupillary response, when they are particularly high or particularly low, and when they are used to predict broadly defined outcome categories.

With regard to the latter finding, the researcher notes that multiple studies showed the GCS to be an only modestly effective or ineffective predictor of results on the Glasgow Outcome Scale (GOS), outcome measures based on length of stay, or various measures of specific functional abilities. By contrast, the GCS demonstrated a predictive rate as high as 80% when the five GOS categories were consolidated into two: good or favorable outcome and poor or unfavorable outcome.

Several studies also show that scores on the motor component of the GCS have about as much predictive ability as the total GCS score. According to the researcher, this finding indicates that “the total GCS score may not be a valid measure in recording level of consciousness” and that its validity may need to be explored further.

The researcher suggests that more accurate prediction of TBI outcomes can improve the ability of clinicians—especially nurses—to respond promptly to the needs of both patients and family members. For example, better predictions would help nurses to coordinate prompt consultations with physical, speech, and occupational therapists and other specialists and to facilitate family members' emotional adjustment to their loved one's condition. ●

Source: *J Neurosci Nurs*. 2007;39(2):68–75.