Patients Living Longer on Transplant Wait List

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SAN FRANCISCO — Some patients awaiting heart transplantation are as likely to remain alive for 2 years as are those who get transplanted hearts, an outcome that raises the question of whether better risk-stratification methods would keep some patients from being wait-listed in the first place, Dr. Katherine Lietz said at the annual meeting of the International Society for Heart and Lung Transplantation.

In a retrospective study of newly wait-listed patients in the U.S. from 1990 to 2005, Dr. Lietz and her colleague found that the odds of being alive 1 year later or having received a heart transplant jumped from 49% to 69% for patients classified as United Network for Organ Sharing (UNOS) status 1, and improved from 81% to 89% for UNOS status 2 patients.

The probability of wait-listed patients undergoing heart transplantation within 1 year barely changed during that time span. For status 2 patients, the odds of being transplanted within 1 year decreased from 53% in 1990-1994 to 49% in 2000-2005. For status 1 patients, the odds of being transplanted within 1 year crept from 85% to 87%, and the probability of remaining alive on the waiting list for 1 year increased from 17% in 1990-1994 to 40% in 2000-2005.

The improvements seem to be attributable to better medical and device therapies for advanced heart failure, which are keeping patients alive longer on transplant waiting lists, Dr. Lietz said. UNOS status 1 includes the sickest patients who are on device or mechanical support or continuous infusion with IV inotropes. The number of status 1 patients on heart transplant waiting lists increased from 836 in 1990 to 1,159 in 2005, while the number of status 2 patients on a waiting list decreased from 2,612 in 1992 to 1,147 in 2005. Today, the two groups are nearly equally represented on the waiting lists, reported the investigators, of Georgetown University, Washington.

For status 2 patients, the chances of being alive after 2 years on the waiting list increased from 65% in 1990-1994 to 81% in 2000-2005. That 81% survival rate approaches the current 85% survival rate for patients undergoing heart transplantation. Statistical modeling suggests that 2-year survival for patients added to waiting lists today as status 2 would be equivalent to that of patients undergoing heart transplantation, Dr. Lietz observed.

The odds of being alive 1 year later or having received a heart transplant jumped from 49% to 69% for newly wait-listed patients classified as UNOS status 1.

"That raises the question of whether early listing is justified in some of these patients," she said.

Status 2 patients are a heterogeneous group, however. In the study, 20% died within 2 years of wait-listing, and another 20% were upgraded to status 1. On the other hand, 1,701 status 2 patients were alive more than 5 years after being wait-listed, and 261 patients were alive after 10 years on the list.

"We need better methods of risk-stratifying them, as early listing may not be justified in all these patients," Dr. Lietz said.

A physician in the audience suggested that what might help more than better risk stratification at the time of wait-listing is better recognition of "triggers" that should prompt reclassification of patients on the list. These might include status 2 patients whose tolerance to β-blocker therapy decreases, or those who develop a creatinine level greater than 1 mg/dL, she said.

Among the wait-listed status 1 patients, 39% died within 2 months. In this very high-risk group, few patients were supported with mechanical devices. The lack of an implantable cardioverter defibrillator (ICD) was significantly associated with poorer outcomes, "perhaps confirming the role of ICD as a bridge to transplantation in these patients," Dr. Lietz said. "For [status 1] patients who are very sick with signs of severe pump failure, use of mechanical circulatory support should be considered," especially if the anticipated wait before transplantation exceeds 2 months because of the patient's blood type, body size, or other factors. ■