Cardiac and Multi-organ Transplantation for Adults with Congenital Heart Disease.

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Introduction: Cardiac transplantation for patients with congenital heart disease (CHD) has been associated with increased morbidity and mortality compared to patients with cardiomyopathy.

Objective: To report our single-center experience with adults who had cardiac and multi-organ transplantation for end-stage CHD.

Patients and Methods: We reviewed records for all adults (age > 18 years) with CHD transplanted at Mayo Clinic, Rochester, Minnesota, through June 30, 2012. Patients with cardiomyopathy were excluded, unless CHD was present.

Results: Overall, 27 adults had cardiac transplantation for end-stage CHD (mean age 38.1 ± 12.9 yrs; range 19 to 65 yrs). Two patients had combined heart/liver transplantation; one had heart/kidney transplantation. Two patients (7%) had no previous cardiac surgery; the remaining 25 patients had a mean of 3 (range 1 to 8) prior cardiac operations. Patient survival at 1, 5, and 10 yrs was 96%, 96%, and 74%, while graft survival was identical. During the same era, ISHLT-reported patient survival in patients with non-congenital heart failure was 85%, 72%, and 56%, respectfully. Over a mean of 9.6 ± 6.2 yrs of follow-up, rejection requiring treatment was documented in 25 patients (93%). Ten patients (37%) have been diagnosed with neoplasia (6 dermatologic, 2 gynecologic, 1 leukemia, 1 meningioma). None have required re-transplantation. Three patients (11%) developed significant coronary vasculopathy, all of whom died 10 ± 4 yrs after transplantation.

Conclusions: With appropriate patient selection and multidisciplinary post-transplantation monitoring, survival for adults with complex end-stage CHD can be equivalent to patients with cardiomyopathy. Multi-organ transplants are an option for selected patients with CHD.