

CARDIAC FUNCTION AND HEART FAILURE

RISK OF STROKE AND DEATH IN PATIENTS WITH SYMPTOMATIC CEREBROVASCULAR DISEASE UNDERGOING HEART TRANSPLANTATION: AN ANALYSIS OF THE UNITED NETWORK FOR ORGAN SHARING REGISTRY

ACC Poster Contributions
 Georgia World Congress Center, Hall B5
 Sunday, March 14, 2010, 9:30 a.m.-10:30 a.m.

Session Title: Cardiac Transplantation--Basic and Clinical
 Abstract Category: Cardiac Transplantation/Assist Devices--Basic and Clinical
 Presentation Number: 1012-49

Authors: *Vishnu Patlolla, Vanajakshi Mogulla, Benjamin Kalsmith, David DeNofrio, Rajan Krishnamani, Tufts Medical Center, Boston, MA, UMass Medical Center, Worcester, MA*

Introduction: Symptomatic cerebrovascular disease (sCVD) is considered a relative contraindication for heart transplantation (HT). But long term outcomes in patients with sCVD undergoing HT have not been studied.

Methods: We analyzed all first time, single organ HT recipients, 40 yrs or older, in the US from 4/94 to 12/06, in the UNOS registry, with known sCVD status noted in the transplant candidate registration form. Unadjusted risk of stroke and death were compared between patients with and without sCVD by Kaplan-Meier curves; and multivariable adjusted models (Weibull AFT model and Cox PH model for stroke and death respectively). Analysis was adjusted for: donor and recipient age, sex and race; ischemic cardiomyopathy; drug treated HTN and COPD; diabetes mellitus, dialysis status, wait list status; ventilator and VAD use; creatinine, bilirubin, ischemia time and transplant year.

Results: Unadjusted risk of stroke and death were higher in sCVD group than in the no sCVD group at all time points (Table 1). At 10 yrs after transplant 21.7% in the sCVD group vs. 10.8% in the no sCVD group had a stroke ($p < 0.0001$) and 56.2% in the sCVD group vs. 50.8% in the no sCVD group died ($p = 0.009$). In multivariable analysis, patients with sCVD were more likely to have a stroke (HR 1.83, 95% CI: 1.47, 2.28) but not death (HR 1.07, 95% CI: 0.95, 1.20).

Conclusions: Patients with sCVD are more likely to have a stroke or die during follow-up after HT. However, sCVD is an independent predictor only of stroke and not death after HT.

Table 1. Risk of stroke and death in patients with symptomatic CVD undergoing HT								
	Univariable analyses						Multivariable analyses	
	Prior to discharge N (%)	1 yr N (%)	2 yr N (%)	5 yr N (%)	10 yr N (%)	p value	HR (95% CI)	p value
Stroke								
No sCVD (N=18,008)	447 (2.5)	622 (3.7)	715 (4.4)	951 (6.6)	1152 (10.8)	<0.0001	1.00 (Ref)	
sCVD (N=744)	30 (4.0)	45 (6.6)	53 (8.1)	75 (13.5)	90 (21.7)		1.83 (1.47, 2.28)	<.0001
Death								
No sCVD (N=18,008)	1425 (8)*	2496 (14.0)	3143 (17.9)	4440 (27.6)	6150 (50.8)	0.0087	1.00 (Ref)	
sCVD (N=744)	74 (10)*	119 (16.1)	148 (20.5)	207 (31.4)	275 (56.2)		1.07 (0.95, 1.20)	0.2767

*after excluding 168 patients without a discharge date.