PCI DOES NOT PROLONG SURVIVAL IN PATIENTS WITH CARDIAC ALLOGRAFT VASCULOPATHY

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Cardiac allograft vasculopathy (CAV) is a progressive diffuse form of arterial narrowing affecting patients with orthotopic heart transplants (OHT). Percutaneous intervention (PCI) has been used to treat patients with proximal CAV. The outcome of patients undergoing PCI for proximal CAV in comparison to patients with distal or diffuse disease not amenable to intervention is currently unknown.

Methods: All patients undergoing OHT and subsequent coronary angiography at the Cleveland Clinic were considered for inclusion. Subjects were divided into 3 groups: no/ mild CAV, moderate or severe diffuse CAV without revascularization, severe CAV with revascularization. Kaplan Meier survival analysis was used for group comparisons

Results: Data from 282 patients (222 M, 60 F) including 1759 angiographies were used for analysis. Mean age of undergoing OHT was 52.5 years (range 4 - 72 yrs). During the study period, 96 PCI were performed in 51 patients. CABG and repeat OHT were performed in 5 and 4 patients respectively. Mean (SD) time to first revascularization was 8.8 (5.0) years. 84 patients had evidence of at least moderate CAV within the first 10 years after OHT. Of these, 43 patients developed CAV within the first 5 years after CAV, 16 of whom underwent revascularization. Patients with proximal CAV requiring PCI had significantly reduced survival compared to those with moderate or severe distal diffuse disease not amenable to PCI (p=0.04) or those with no/ mild CAV (p=0.005). Median survival after first revascularization was 5.7 years. Repeat revascularization was needed in 20 patients (2 procedures in 12 patients, 3 procedures in 7 patients, 4 procedures in 1 patient). There was no significant difference in median survival after PCI among patients with onset of CAV within 5 years, between 5-10 years or 10 years after OHT. Median survival in these three groups was measured as 6.8 years, 5.5 years and 5.8 years respectively (p=0.4).

Conclusions: Patients with proximal CAV requiring PCI have a significantly lower survival as compared to those with diffuse distal disease, which is not amenable to revascularization. The median survival after PCI appears to be constant, regardless of the time of occurrence of CAV after OHT.