Late antibody-mediated rejection after heart transplantation: Mortality, graft function, and fulminant cardiac allograft vasculopathy

Coutance et al reviewed heart transplant recipients at least 1 year after transplant who had presented with at least 2 of the 3 criteria for antibody-mediated rejection (AMR). The criteria used were:

1) cardiac allograft dysfunction with symptoms of heart failure
2) presence of donor-specific antibody (DSA)
3) Histologic signs of AMR on endomyocardial biopsy

The authors concluded that histologic pathology grade of biopsy specimens or levels of DSA were not significant predictors of in-hospital mortality. Furthermore, despite aggressive treatment (permutations of IV methylprednisolone, IVIg, plasmapheresis, and rituximab) clinically severe AMR was associated with high mortality (survival after late AMR was 80% at 1 month, 60% at 3 months, and 50% at 1 year after AMR was first diagnosed). Coronary angiography results indicated that cardiac allograft vasculopathy (CAV) was common in the patients with AMR.

In a special commentary ("Continuing the pursuit of heart transplant antibody-mediated rejection", Kobashigawa JA, J Heart Lung Transplant, 2015 Sep;34(9):1134-5) the author suggested that "This provides a platform to proceed with more clinical trials that might include randomized trials of the treatment of asymptomatic AMR, trials of the treatment of de novo DSA, and trials of newer agents such as proteasome inhibitors in the prevention of AMR".

Review provided by:

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