



Heart Failure and Cardiomyopathies

CLINICAL CHARACTERISTICS, OUTCOMES AND IMMUNOSUPPRESSION STRATEGIES OF HEART TRANSPLANT RECIPIENTS INFECTED WITH COVID-19

Poster Contributions

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Authors: *Onyedika J. Ilonze, Kareem Ballut, Mark Jones, Roopa Rao, Maya Guglin, Indiana University, Indianapolis, IN, USA*

Background: Clinical characteristics, management of immunosuppression and outcomes of heart transplant recipients infected with COVID-19 are uncertain. Literature is limited to isolated case reports and series.

Methods: We analyzed the literature on COVID-19 (2020) and systematically reviewed the case reports and series where individual patient data were presented. We searched Pubmed and Google Scholar for “coronavirus”, COVID-19, SARS-CoV-2 in combination with “heart transplant” and “heart-kidney transplant”.

Results: We identified 39 patients with a history of heart, 35 (89.8%) and heart-kidney transplants, 4 (10.3%) diagnosed with COVID-19. Median age was 59 (49.5-66.5), patients were predominantly male 33 (84.6%) and almost half (48.7%) were >60 years of age. 34 patients (87.1%) were hospitalized and 3 (7.6%) treated as outpatients. The median time from transplant was 6.5 years with 79.4% being more than 1-year post-transplant. The predominant syndrome on clinical presentation was febrile viral illness with respiratory symptoms (66.7%), cough (64.1%) and dyspnea (48.7%), but few patients, 5 (12.8%) presented with new left ventricular dysfunction and no rejection, diagnosed with myocarditis. Overall mortality was 10.2%. Immunosuppression was unchanged in 17.9% of cases, but in 70% of cases antimetabolites were discontinued (38%) or the dose was reduced (32%). Survival in hospitalized patients was 88% but only 33% in patients requiring ICU admission.

Conclusion: Patients with heart transplants and COVID-19 have a similar presentation as the general population, with an overall mortality of 10.2%. Cases of myocarditis were reported and should be recognized. The predominant strategy of immunosuppression management was reduction or cessation of antimetabolites in 70% of patients.