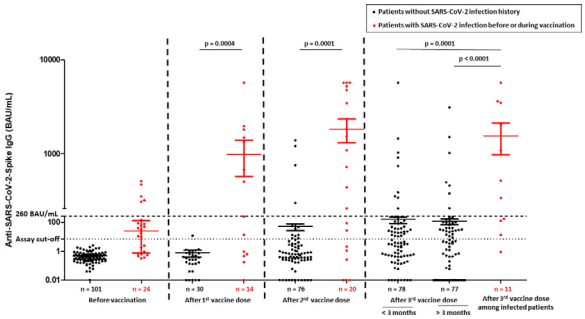
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.



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Long COVID-19 in Heart Transplant Recipients

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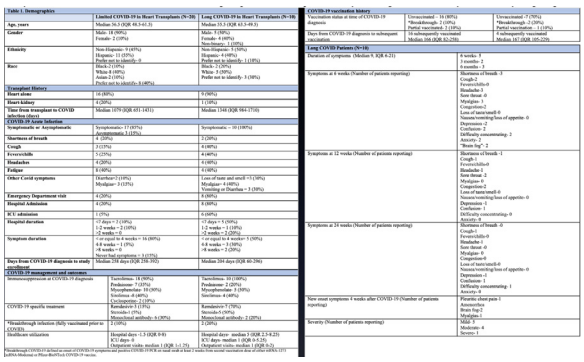
Purpose: The goal of this study was to assess the frequency and common symptoms of post-acute COVID-19 syndrome (Long COVID-19) in heart transplant recipients (HTR).

Methods: After obtaining IRB approval, we conducted telephone surveys of HTR (n=30) who had tested positive for SARS-CoV-2 to evaluate their experience with acute COVID-19 illness and assess symptoms of Long COVID-19. Symptoms at onset and also beyond 6, 12, and 24 weeks of the initial diagnosis were recorded. Additionally, medical charts were reviewed for detailed information regarding transplant history, immunosuppression, COVID-19 management and hospitalization, and COVID-19 vaccination status.

Results: As noted in Table 1, among the 30 participants, 10 (33%) had symptoms consistent with Long COVID-19. Those with Long COVID-19 were more symptomatic during acute illness, with 40% of patients reporting cough, fevers or chills, and headaches, compared with 15%, 25%, and 20% respectively in those without Long COVID-19. Emergency department visits at initial illness (80% vs. 20%) and admission to the intensive care unit were more frequent (60% vs. 5%) in the Long COVID-19. Symptoms of Long COVID-19 lasted for a median of 9 weeks with 30% reporting ongoing symptoms at week 24. The most common persistent symptoms were depression, confusion, and difficulty concentrating.

Conclusion: This study is an early investigation of a complex syndrome of Long COVID-19 in transplant patients. Long COVID-19 is not well described in the transplant setting. HTR at our center with Long COVID-19 were sicker at their initial COVID-19 diagnosis and had more emergency room visits, hospital admissions, and longer hospital stays than those without subsequent Long COVID-19. Although, recall bias could affect participants' ability to remember details and symptoms, this would have impacted both groups similarly as the time since COVID-19 diagnosis to study enrollment was similar between the two groups. These are preliminary findings and the study is currently ongoing.



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Do VAD Infections Predict Post-Heart Transplant Infections or Mortality?

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Purpose: Infections are common after ventricular assist device (VAD) implantation but how these infections impact post-heart transplant (HT) course in patients (pts) supported with short-term (ST) VADs is not fully defined. We investigated whether VAD infections had any impact on post-HT outcomes, such as development of post-HT infections or mortality.

Methods: We performed a retrospective cohort study of 185 HT recipients (HTRs) supported with ST-VADs from 4/2006-10/2020. VAD-specific and -related infections were characterized according to 2011 ISHLT definitions. Statistics were performed using IBM® SPSS Statistics version 25.0.

Results: Prior to HT, 41 (22.2%) pts had VAD infections involving the bloodstream (n=17), pump (n=8), pocket (n=2) and driveline (n=22); gram-positive and -negative organisms were responsible for 55.3% and 44.7% of infections, respectively. Pts with VAD infections were predominantly male (68.2%, p=0.19), Caucasian (60.9 %, p=0.59), had non-ischemic cardiomyopathy (61%, p=0.67), and a mean age of 52.6 (p=0.351) at VAD implantation. Those with VAD infections had no significant difference in underlying lung disease (26.8% vs 22.9%, p=0.60), hypertension (41.5% vs 33.3%, p=0.33), diabetes mellitus (29.3% vs 21.5%, p=0.30), or chronic kidney disease (53.7% vs 62.5%, p=0.76). Pts with VAD infections had longer duration of VAD support (513.3 d vs. 290.7 d, p=0.001), but were similar to those without VAD infection in terms of HT hospitalization length of stay (26 d vs 24 d, p=0.28), need for re-operation (19.4% vs 16.7%, p= 0.67), thymoglobulin induction (19.5% v. 21.5%, =0.78), cellular-rejection (12.2% vs 19.4%, p= 0.29), and antibody-mediated rejection (31.7% vs 27.8%, p=0.62). HTRs with prior VAD infections had more post-HT infections, but this did not reach statistical significance (53.6% vs 43.1%, p=0.23), with more bacterial (43.9% v. 30.6%, p=0.11), fungal (14.6% vs 8.3%, p=0.23), and *C. difficile* (9.8% vs 3.5%, p=0.11) infections. In those with and without pre-HT VAD infections, 1-year all-cause mortality was 14.6% vs 6.9% (p=0.12), and 1-year infection-related mortality was 4.8% vs 3.5% (p=0.65).

Conclusion: In this single center study, there were non-significant increases in post-HT infections and mortality in HTRs with prior VAD infections. Larger studies are needed to further investigate the impact of VAD infections on post-HT outcomes.

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Incidence and Severity of Cytomegalovirus Infection in Seropositive Heart Transplant Recipients

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Purpose: Cytomegalovirus (CMV) infection contributes to morbidity and mortality in heart transplant recipients (HTR). Donor positive, recipient negative (D+/R-) patients are high risk and generally receive antiviral prophylaxis. The burden of CMV infection in recipient seropositive (R+) HTR is less clear, with preventative recommendations mostly extrapolated from other solid organ transplant groups. The aim of this retrospective cohort study was to define the incidence, severity of & risk factors for CMV infection in R+ HTR.

Methods: CMV seropositive HTR were included (2010-2019). Antiviral prophylaxis was not routinely used, with clinical monitoring the local