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.

Bb, and high levels of soluble terminal complement complex SC5b-9. An approved treatment for aHUS, Eculizumab, was administered. The patient rapidly decompensated with mental status changes, extremity stiffness, and dilated left pupil. Head CT revealed multiple intraparenchymal hematomas and a large left sided subdural hematoma. An emergent craniectomy was performed. Due to poor neurological prognosis and renal failure, the family elected to withdraw care. Autopsy examination was consistent with aHUS with renal endothelial injury. Previously sent genetic testing returned positive for a pathogenic aHUS variant in complement component C3.

Summary: The development of hemolytic anemia, thrombocytopenia, and renal dysfunction that is disproportionate to the rest of the clinical picture should raise suspicion for aHUS. Identifying aHUS in VAD patients is a diagnostic challenge as hemolysis is a potential complication of mechanical support, and decompensated heart failure can lead to end- organ dysfunction. An additional consideration is that a VAD may act as an aHUS trigger through endothelial activation/injury in genetically predisposed individuals.

(1178)

Ventricular Assist Device (VAD) Implantation in a Patient with Complex Congenital Heart Disease (CHD)

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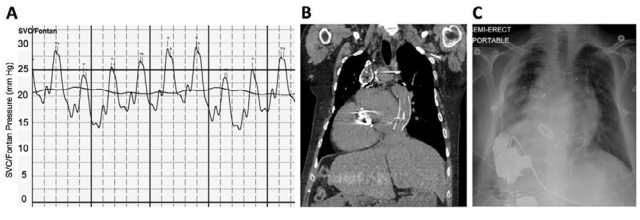
Introduction: VAD implantation in complex CHD patients presents physiologic and anatomic challenges. Few such cases have been described.

Case Report: We report a 41-year-old man with a history of dextrocardia, unbalanced atrioventricular (A-V) septal defect, single ventricle, heterotaxy with right atrial isomerism and asplenia, bilateral superior vena cava, pulmonic stenosis, and systemic hypertension. He had undergone surgical palliation including bilateral BT shunts (age 3 months and 7 years) and central aortopulmonary shunt at age 13 years. At age 14 years, he underwent bilateral bidirectional Glenn and extracardiac Fontan repair, followed by mechanical A-V valve replacement at age 21 years and epicardial pacemaker placement for paroxysmal atrial tachycardia (AT). He had recurrent heart failure hospitalizations requiring inotropes. Echocardiography now demonstrated moderate aortic regurgitation. Cardiac catheterization on milrinone and dobutamine found elevated Fontan pressures to 21 mmHg (panel A), reduced cardiac index to 1.4 L/min/m^2, normal pulmonary vascular resistance and no transhepatic gradient. An intra-aortic balloon pump was placed with improvement of his Fontan pressures to 17 mmHg. However, he subsequently developed refractory AT and cardiogenic shock. Due to cardiac deterioration, he underwent urgent HeartMate3 implantation and aortic valve repair with Park stitch (B: pre-op; C: post-op image) as a bridge to transplant. Surgical approach was an upper hemisternotomy and an anterior right thoracotomy at the 6th intercostal space. His course was complicated by postoperative bleeding requiring re-exploration of the chest, as well as acute kidney injury requiring temporary hemodialysis with subsequent renal recovery. He was transferred to acute rehab 3 weeks after surgery and was discharged home on guideline-directed medical therapy.

Summary: We report an adult patient with dextrocardia, Fontan repair, and single ventricle who underwent successful VAD implantation.



(1179)

Immune Response in Heart Transplant Patients Following COVID-19 Vaccination

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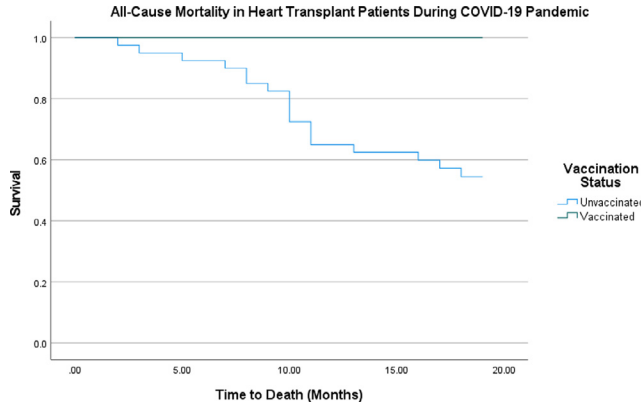
Purpose: Previous studies have described poor outcomes in heart transplant patients who develop COVID-19 infection. Therefore, we sought to characterize a single center's experience with heart transplant patient outcomes during the COVID-19 pandemic and the recent role of vaccination in mitigating the risk of mortality.

Methods: From a single center, we identified all orthotopic heart transplant patients alive at the beginning of the COVID-19 pandemic in March 2020. All patients were followed from the start of the pandemic until their most recent follow up or death. Baseline comorbidities and immediate outcomes data were obtained from the Society for Thoracic Surgery (STS) Adult Cardiac Surgery Database (ACSD). Multiple logistic regression analyzed the association between vaccination status, baseline covariates, and other standard STS outcome measures. Non-parametric tests were used to compare different subgroups.

Results: We included 153 patients, of which 20.9% developed COVID-19 infection (32/153) with 40.6% (13/32) requiring hospitalization and 15.6% of those patients (5/32) dying as a direct result of COVID-19 pneumonia. Kaplan-Meier survival analysis revealed that unvaccinated patients had a significantly higher rate of all-cause mortality as compared to those patients that were fully vaccinated despite similar baseline characteristics ($p < 0.001$). Patients with previous COVID-19 infection in addition to vaccination had significantly higher IgG titers as compared to those only vaccinated (6568.50 AU/mL vs. 58.05 AU/mL, $p = 0.002$).

Conclusion: Immunization against COVID-19 is associated with a significant reduction in the mortality of heart transplant patients. IgG titers were variable among heart transplant patients who received the vaccine with the highest titers seen in those patients with a personal history of COVID-19. The implications of IgG levels are still unknown.



(1181)

Incidence of BK Viremia in Simultaneous Heart-Kidney Transplant Recipients: A Single-Center Experience

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Purpose: BK virus (BKV) after kidney transplant is associated with decreased graft survival, increased morbidity, and increased health-care costs. Management of BKV post-transplant remains difficult, especially in dual organ transplants where immunosuppression requirements are typically higher and limited evidence exists. Our aim was to describe our experience with simultaneous heart-kidney transplant (HKT) recipients who developed BKV.

Methods: This was a single-center case series of HKT recipients between 11/2015 and 11/2019. Data are presented as median (IQR) or percentages,