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group also had a higher rate of dialysis after transplant. Therefore, it is unlikely but still unclear if brain death time has a significant effect on cardiac transplant outcomes. Further study is needed to investigate causes of the differences in some outcomes between groups.

(821)

### The Efficacy and Safety of Belatacept in Heart Transplant Recipients

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**Purpose:** Belatacept (BTC) is a high-affinity CTLA4-Ig variant indicated for prophylaxis of graft rejection in adults receiving a kidney transplant. Data on the utilization of BTC therapy in heart transplant (HT) recipients are scarce. The aim of this study was to describe the use of BTC as a treatment option in selected HT pts

Variable	Pre-transplant
Age <i>Mean ± SD</i>	53 ± 15.26
<b>Race (%)</b>	
White	71.40%
African American	23.80%
Hispanic	4.80%
EF <i>Median, IQR</i>	57.5 [57.5-62.5]
CI (Fick) <i>Mean ± SD</i>	2.98 ± 0.558
BMI <i>Median, IQR</i>	24.3 [22.6-26.6]
DM	23.60%
HTN	68.40%
Dyslipidemia	36.80%
<b>HF Etiology</b>	
Non-ischemic	85.70%
Ischemic	14.30%
<b>Number of Transplants</b>	
1	76.20%
2	23.80%
<b>Days post-transplant</b>	
<i>Median, IQR</i>	689 [483-1834]
<b>Indication for BTC therapy</b>	
DSA	61.90%
Renal protection	23.80%
DSA and Renal protection	9.50%
<b>Rejection events while on BTC</b>	
None	94.1%
2R/3A	5.9%
AMR	4.80%
<b>Graft Function</b>	
LVEF baseline	59.3 ± 4.5
LVEF at 6 months	59.8 ± 5.8
<b>Renal failure</b>	73.70%

**Methods:** We conducted a retrospective analysis of all pts who underwent HT between 1/2017 and 4/2020 and received BTC. Baseline characteristics, rejection and infection history were collected. Key laboratory finding and graft function were compared at 6 and 12 months.

**Results:** Out of 776 patients who received a HT during the study period, 21 pts were treated with BTC and were included in this analysis. Mean age at time of HT was 53 ± 12 years, 38% were female. BTC was initiated a median of 22.6 months IQR [22.6-66.8] after HT. The most common indication for BTC was elevated DSA (61.9% of patients) followed by renal protection (23.8%). Only 1 patient experienced grade 2R rejection in the 12 months following initiation of BTC and 1 additional pts had pAMR 1H. Graft function was unchanged at 6 and 12 months. Serum creatinine improved in 76.2% of the patients from a median of 1.58 IQR [1.0-2.1] at baseline to 1.45 IQR [1.1-1.9] at 12 months (p=0.054). At 6 and 12 months following BTC therapy, no significant differences were found in hemoglobin (11.3 vs 11.1 g/dl) or white blood cell count (5.9 vs 6.1 × 10<sup>3</sup> u/L). 33.3% experienced infection (71.4% viral infection, 28.5% bacterial 14.2% fungal). 33.3% of the patients required temporary discontinuation of treatment due to the side effects and 4 patients were switched back to CNI (19%).

**Conclusion:** BTC therapy was used predominantly for management of elevated DSA or for renal protection. BTC therapy resulted in improved kidney function and was associated with a low rejection rate and preserved graft function. Infections were common during BTC therapy and BTC was discontinued in 19% of patients due to side effects. Further randomized studies are needed to assess the efficacy and safety of BTC in HT recipients.

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### Characteristics and Outcomes of Recipients of Heart Transplant with Coronavirus Disease 2019 Who Received Casirivimab Plus Imdevimab Infusion

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**Purpose:** Heart transplant (HT) recipient are at increased risk of adverse outcomes following COVID-19 infection and may benefit from monoclonal antibody infusion to mitigate progression to clinically severe disease. The aim of this study is to describe the outcomes of HT patients who experienced mild to moderate coronavirus disease 2019 (COVID-19), with subsequent administration of casirivimab plus imdevimab administration.

**Methods:** A retrospective review of all HT recipients who were infected with COVID-19, and subsequently infused with monoclonal antibodies in a large academic medical center between January 1, 2021 to September 1, 2021.

**Results:** 14 HT patients were included in the analysis. The median age was 57.5 (interquartile range [IQR], 41.5-64) years, 10 (71%) were men, and median time from HT was 3.48 (IQR, 1.00-11.82) years. Comorbid conditions included hypertension in 6 patients (43%), diabetes in 4 (29%), and chronic kidney disease in 6 (43%). Eight patients (57%) were previously vaccinated, predominantly with the Pfizer-BioNTech vaccine. Three participants (21%) were admitted after clinical progression of COVID-19. Among patients managed at the study institution, mycophenolate mofetil was discontinued in two patients (14%) and calcineurin inhibitor was maintained at previous levels in all fourteen patients (100%). Of the admitted patients, 1 was treated with high dose corticosteroids alone and 2 were treated with corticosteroids plus remdesivir. No patient required intubation. All 3 patients were discharged home and no patients in this cohort died.

**Conclusion:** In this single-center case series, HT patients with mild-moderate COVID-19 who were treated with monoclonal antibody infusion had a hospitalization rate of 21% and 100% survival. Further studies are required to optimize management of COVID-19 infection in the HT population.