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real RTPCR (24 hrs within HT) upon admission. All pts were looked after by experienced staff who tested negative for SARS-CoV-2, wearing PPE, working in isolation, single room care and visitors were not admitted.

Results: No recipient or donor tested positive for SARS-CoV-2 at any stage in their care. 5 (8%) pts died, >30 days after the procedure, of multiorgan failure; all 5 pts were in INTERMACS II at the time of OHT. All patients were managed with our standard immunosuppression therapy consisting of mycophenolate mofetil and steroids in addition to calcineurin inhibitor (tacrolimus). According to recent results 25 patients (40%) had allograft rejection of ISHLT grade 3a detected by routine endomyocardial biopsies within first 3 months. The highdose steroids therapy was involved and positive response (ISHLT grade 0) was observed. 56 pts had a hospital stay of 30 d or less, 7 pts more than 30 d. Follow up visits were conducted using telemedicine unless it was absolutely necessary to see the pt in hospital. Also, we raised the threshold for endomyocardial biopsies by relying on clinical judgement and stable allograft function.

Conclusion: By creating a robust system of care based on team work, early testing and retesting of patients and staff for SARS-CoV2, the use of proper PPE's, adequate isolation and subsequent minimization of contact with pts, we were able to demonstrate that HT in the era of COVID19 pandemic can be performed safely.

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Natriuretic Peptide Levels and Clinical Outcomes among Patients Hospitalized with COVID-19 Infection

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Purpose: There is increasing evidence of adverse cardiovascular morbidity associated with SARS-CoV-2 (COVID-19). Pro-B-type natriuretic peptide (proBNP) is a biomarker of myocardial stress associated with outcomes in various respiratory and cardiac diseases. We hypothesized that proBNP level would be associated with mortality and clinical outcomes in hospitalized COVID-19 patients.

Methods: We performed a retrospective analysis of hospitalized COVID-19 patients (n=1232) using adjusted logistic and linear regression to assess the association of admission proBNP (analyzed by both categorical cutoff >125 pg/mL and continuous log transformed proBNP) with clinical outcomes. Covariates included age, sex, race, body mass index (BMI), hypertension, coronary artery disease (CAD), diabetes, smoking history, and chronic kidney disease stage (Model 1), with Troponin I added in Model 2. We performed survival analysis by a multivariate Cox proportional hazard model, incorporating log transformed proBNP. We additionally treated BMI, a strong potential confounder of both proBNP levels and COVID-19 outcomes, as an ordinal variable ordered across tertiles.

Results: Patients were mean age 62.9±17.6, 53.8% male, and 35.9% Black. Preadmission comorbidities were hypertension (57.1%), diabetes (31.6%), CAD (9.0%) and heart failure (HF, 10.6%). In Model 1 and 2, higher proBNP level was significantly associated with death, new HF, length of stay, ICU duration and need for ventilation among hospitalized COVID-19 patients. This significance persisted after ordinal compression of BMI across tertiles. The adjusted hazard ratio of death for log[proBNP] was 1.56 (95% CI: 1.23-1.97; P<0.0001).

Conclusion: Using a relatively large and racially diverse hospitalized COVID-19 patient cohort, we find that proBNP is associated with adverse clinical outcomes, including mortality and new HF in COVID-19. Further prospective investigation is warranted on the utility of proBNP for clinical prognostication in COVID-19.

	proBNP (>125 pg/mL)		Log transformed proBNP	
	OR or β (95% CI)	P-Value	OR or β (95% CI)	P-Value
Unadjusted				
Death (n=1230)	6.5 (4.1-10.4)	<0.0001	2.4 (2.0-2.9)	<0.0001
New HF (n=1100)	3.3 (1.7-6.4)	<0.0001	2.2 (1.7-2.0)	<0.0001
Ventilator Need (n=1230)	2.4 (1.8-3.3)	<0.0001	1.5 (1.3-1.7)	<0.0001
Length of Stay (n=1230)	146.4 (104.5-188.4)	<0.0001	81.3 (59.3-103.4)	<0.0001
ICU Duration (n=1230)	66.0 (36.4-95.4)	<0.0001	28.7 (13.1-44.2)	0.0003
Ventilator Duration (n=280)	-28.2 (-147.9-91.6)	0.64	-8.8 (-69.5-51.8)	0.77
Model 1				
Death (n=1059)	3.4 (1.6-4.8)	<0.0001	2.1 (1.6-2.7)	<0.0001
New HF (n=957)	1.7 (1.2-6.3)	0.013	3.0 (2.0-4.4)	<0.0001
Ventilator Need (n=1059)	3.4 (2.2-4.8)	<0.0001	1.9 (1.5-2.4)	<0.0001
Length of Stay (n=1059)	111.6 (62.5-160.7)	<0.0001	63.5 (33.7-93.2)	<0.0001
ICU Duration (n=1069)	58.7 (21.4-96.0)	0.002	34.0 (11.4-56.5)	0.003
Ventilator Duration (n=219)	-31.9 (-160.3-96.4)	0.62	-55.3 (-128.4-17.8)	0.14
Model 2				
Death (n=636)	3.4 (4.6-7.3)	0.002	2.0 (1.4-3.0)	<0.0001
New HF (n=578)	1.7 (0.7-4.1)	<0.0001	2.5 (1.5-4.0)	<0.0001
Ventilator Need (n=636)	3.4 (2.1-5.5)	<0.0001	2.1 (1.6-2.8)	<0.0001
Length of Stay (n=636)	104.6 (33.3-175.9)	0.004	77.1 (31.5-122.8)	0.001
ICU Duration (n=636)	50.0 (-2.7-102.6)	0.06	44.8 (11.1-78.4)	0.009
Ventilator Duration (n=150)	-67.8 (-238.8-103.3)	0.44	-53.8 (-157.4-49.9)	0.31

N indicates patients analyzed for indicated model and specified outcome. proBNP: pro-B-type natriuretic peptide, HF: heart failure, ICU: intensive-care unit. Model #1: Adjusted for age, sex, race, BMI, hypertension, coronary artery disease, diabetes mellitus, smoking history, and stage of chronic kidney disease. Model #2: Model #1 adjustments with Troponin I. OR: Odds Ratio. β: Regression coefficient. Logistic regression performed for Death, New HF and Ventilator Need. Linear regression performed for Length of Stay, ICU Duration and Ventilator Duration.

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The Utility of Televisits in Patients with Cardiac Amyloidosis during the COVID-19 Pandemic

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Purpose: In the era of COVID-19, the televisit has become a critical means of providing healthcare for patients unable to attend in-person visits. Transthyretin and light chain amyloidosis are complex diseases, that require frequent and close follow up. The aim of this study was to assess the utility and effectiveness of televisit encounters for patients with cardiac amyloidosis (CA) during the COVID-19 pandemic.

Methods: This was a prospective cohort study of consecutive patients with CA who were evaluated by televisit between March and May, 2020, at a large academic medical center. Patient demographics, baseline medications and details of televisit encounters were collected from electronic medical records. Patients were followed for 3 months from their first televisit for medication changes, in-person clinic visits, hospital admissions, and mortality.

Results: Ninety-eight patients with CA were included. Mean age was 76.5±9.1 yrs and 79 were male (80.6%). The number of televisits per patient is shown in Figure 1a. Over 3-months follow-up, 26 patients (26.5%) were seen for either an in-person clinic visit or right heart catheterization. There were 7 emergency room visits, of which 4 (4.1%) resulted in hospital admission, 1 patient (1.0%) had multiple admissions and no patient died (Figure 1b). None of the hospital admissions occurred within two weeks of a televisit. Hospital admissions were due to heart failure exacerbation, sepsis, acute kidney injury and dehydration secondary to diarrhea. During follow-up, 23 patients (23.5%) had medication adjustments, most commonly changes in diuretic (56.5%) and mineralocorticoid receptor antagonist (56.5%) doses. Two patients were newly initiated on tafamidis, for treatment of transthyretin CA.

Conclusion: The use of televisits for the management of patients with CA is feasible, and the low admission rate indicates that televisits are a safe and effective way to manage CA patients in the outpatient setting.