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.

established how much donor smoking attributes to this problem. Therefore, we reviewed our experience with donors and their smoking history to assess this post-transplant complication.

Methods: Between 2010 and 2017, we assessed 678 donors whose heart underwent heart transplantation. Donors were separated into those with smoking history >20 pack-years and continued cigarette use in the past 6 months (data provided from UNOS). Each group was assessed for 1-, 2-, 3-year survival and freedom from the development of coronary angiography-proven evidence of CAV (defined as coronary lesion ≥30% stenosis). This study group was compared to a control group with no donor smoking history.

Results: Donors with a current 20 pack-year smoking history compared to those donors without smoking had a trend for an increased risk for the development of CAV on coronary angiography over 3 years. 1-, 2-, 3-year survival was similar in both groups.

Conclusion: Active donor smoking history appears to be a potential risk factor for the development of CAV. Longer follow-up is needed to further define this risk.

Donor smoking hx >20 years + last 6 months vs. no smoking hx; full donor cohort

	Donor smoking hx >20 pack-years and last 6 months (n=52)	No donor smoking hx (n=616)	p-value
1-year survival	94.2%	90.9%	0.403
1-year freedom from CAV	90.4%	95.0%	0.192
2-year survival	92.3%	88.2%	0.349
2-year freedom from CAV	84.6%	91.9%	0.092
3-year survival	90.4%	85.7%	0.328
3-year freedom from CAV	80.8%	88.9%	0.098

(1106)

When is Significant Left Ventricular Hypertrophy Acceptable for Donor Heart Selection

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Purpose: Extended criteria of donors for heart transplant (HTx) include many factors, such as left ventricular hypertrophy (LVH), decreased LVEF, older donor age, inotrope dependence, as well as gender and size mismatch. It has also been reported that various combinations of extended criteria risk factors appear to have worse outcomes depending on severity of the extended criteria characteristic. We sought to assess if severity of LVH with acceptable donor age and ischemic time is associated with increased mortality.

Methods: Between 2010 and 2020, we assessed 156 donor hearts with varying degrees of LVH defined as left ventricular septal thickness greater than 1.2 cm. Donor hearts were then divided into those that had IVS between 1.2 to <1.3 cm, 1.3 to <1.5 cm, ≥1.5 cm. In addition, an assessment was made for the same LVH groups versus donor age categorized as donor age ≥50 years old and donor ischemic time >240minutes.

Results: Severity of LVH with donor age <50 years and ischemic time <240 min appear to have acceptable 1-year survival. However, older donor age/long ischemic time with LVH are higher risk for 1-year mortality. (see table)

Conclusion: Severe LVH (IVS >1.5 cm) in donor hearts appears to be acceptable with donor age <50 years and ischemic time <240 minutes.

1-year survival, donor age, and ischemic time comparing all three IVS groups

	IVS 1.2 to <1.3 cm (n=89)	IVS 1.3 to <1.5 cm (n=55)	IVS ≥1.5 cm (n=12)	Control: IVS <1.2 cm (n=839)	p-value
Donor age (years)	37.8 ± 13.0	40.1 ± 9.6	36.9 ± 9.3	34.6 ± 12.6	0.002
Ischemic time (min)	164.9 ± 47.7	178.8 ± 51.0	187.4 ± 36.0	175.6 ± 51.9	0.204
1-year survival	89.9%	87.3%	100.0%	91.4%	0.496

Factors contributing to death within 1 year post-HTx

	Odds ratio (95% CI)	p-value
IVS ≥1.3 cm	1.20 (0.53 to 2.74)	0.663
Donor age ≥50 years	2.29 (1.39 to 3.79)	0.001
Ischemic time >240 minutes	2.28 (1.26 to 4.12)	0.007

(1107)

Lower Incidence of Postoperative Atrial Arrhythmia After Prophylactic Donor Heart Tricuspid Annuloplasty in Orthotopic Heart Transplantation

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Purpose: Donor heart tricuspid valve annuloplasty (dTVA) may reduce incidence of tricuspid regurgitation after orthotopic heart transplantation (OHT) but data on short-term hemodynamics outcome after prophylactic dTVA is limited. We hypothesized that prophylactic dTVA could benefit post-operative hemodynamics by minimizing right atrial pressure and atrial fibrillation. In our program, we have two primary OHT surgeons, one who routinely uses a DeVega dTVA and one who does not, presenting an opportunity for the study.

Methods: We retrospectively evaluated 52 consecutive OHT recipients between January 2020 and September 2021. They were divided into standard bicaval OHT group (sOHT; n = 28) and bicaval OHT with De Vega dTVA group (dvTVA; n = 24). Incidence of atrial fibrillation, hemodynamics, intensive care unit (ICU) length of stay (LOS), total LOS and echocardiographic measurements were reviewed and analyzed.

Results: Of 52 OHT recipients, mean age was 54.4 ± 11.3 years and 13 (25%) were female. There was no difference between groups in ICU or total LOS, days on inotropic support and in-hospital mortality. Hemodynamically, mean central venous pressure (CVP) at one week, four weeks and three months was not significantly different between groups. Proportion of recipients with significant v wave from CVP tracing wave form in the sOHT group trended higher but without statistically significance compared to dvTVA group and lowered overtime (46.1% vs 26.1%, p = 0.23 at one week, 25.0% vs 20.8%, p = 0.75 at four weeks and 16.6% vs 9.5%, p = 0.67 at three months). However, at mean follow-up of 7.4 months, incidence of atrial arrhythmia including atrial fibrillation and atrial flutter in sOHT group was significantly higher than in dvTVA group (32.1% vs 8.3%, p = 0.046) and most of atrial arrhythmia episodes occurred within one month post-operatively.

Conclusion: We show that OHT recipients with dTVA have lower incidence of atrial arrhythmia and trend to have less significant atrial v waves compared with sOHT patients. Interestingly, over time, the v wave in sOHT recipients normalized, suggesting improvement in RV function. Further study is needed to evaluate long-term outcome with prophylactic dTVA in OHT, incidence of amiodarone use and long term survival.

(1108)

Increased Drug Intoxications Seen in Heart Transplant Donors During COVID-19 Pandemic

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Purpose: The majority of heart transplant centers decline heart donors with known or suspected COVID-19. In addition to impacting donor utilization, we hypothesize that the COVID pandemic is associated with increased number of drug intoxication in heart donors.

Methods: The COVID pandemic was declared on March 11th, 2020. The Scientific Registry of Transplant Recipient was analyzed during two 15-month eras: era 1 was defined as January 1st2019 - March 30th, 2020 and era 2 was defined as March 31th, 2020 - June 30th 2021. Donor populations are described by era and UNOS region. T-test was used for trend analysis.

Results: Era 1 identified 7,649 donor hearts and era 2 identified 8,475 donor hearts. There was a significant increase of 577 (45.2%) heart donors with drug intoxication identified as the cause of death from era 1 to era 2

(p<0.0001, **Figure 1**). There was an increase in heart donors from drug intoxication cross all UNOS regions, but the greatest increase was seen in UNOS region 5 (120.3%) followed by region 7 (69.1%) and region 4 (61.4%) (**Figure 2**).

Conclusion: More donor hearts were recovered for transplantation during the COVID-19 pandemic, with a notable increase in those who died from drug intoxication. This finding may reflect a psychosocial effect of the pandemic on the general population that has impacted the field of heart transplantation.

Donor smoking hx >20 years + last 6 months vs. no smoking hx; full donor cohort

	Donor smoking hx >20 pack-years and last 6 months (n=52)	No donor smoking hx (n=616)	p-value
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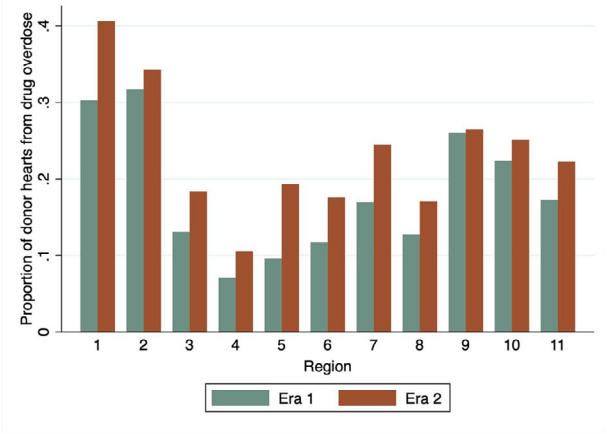

(1109)

Expanding the Diagnosis of Familial Dilated Cardiomyopathy among Heart Transplant Recipients with a Screening Instrument

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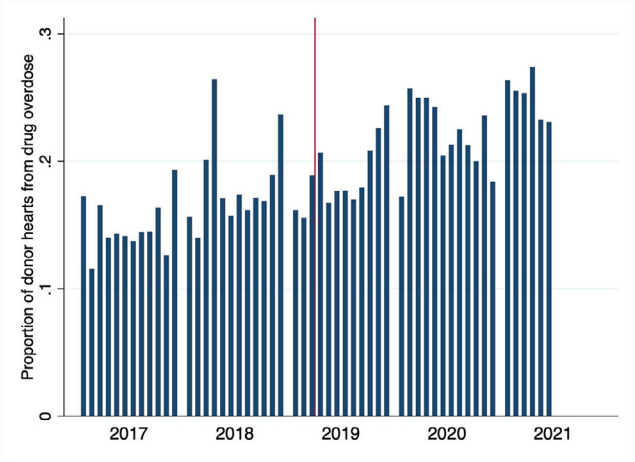
Purpose: Non-ischemic dilated cardiomyopathies (DCM) are important causes of heart transplant worldwide. Previous international data suggest that familial etiology for heart failure may be frequently overlooked among patients undergoing heart transplant. A structured screening instrument may help to identify patients who would benefit from genetic testing.

Methods: Fifty-nine heart transplanted patients from a single transplant center in South of Brazil were reviewed between 2015-2019; those with hypertrophic cardiomyopathies or confirmed ischemic DCM were excluded. Patients with non-ischemic CMP answered a structured screening questionnaire (Kushner et al., 2006), and familial etiology was classified in confirmed, probable, possible familial or non-familial DCM.

Results: Thirty-four heart transplant recipients were included (53% male, 85% Caucacian, 50±14 years). Etiologic classification pre and post structured screening is depicted in Figures 1A and 1B. There was a difference in suspected familial etiology pre and post structured screening (15% versus 32%; p = 0.037).

Conclusion: These findings suggest that familial DCM is frequently overlooked by the time of heart transplant. Our prevalence of familial DCM is similar to international reports. Applying a structured, low-cost, screening tool may contribute to counseling patients and their relatives regarding special attention to cardiovascular conditions and proper indication of genetic testing in a resource-limited scenario.



(1110)

LIVE Procedure - A Bespoke Technique for Ischemic Heart Failure

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Purpose: Ischemic cardiomyopathy is the most common cause of heart failure (HF). In patients with left ventricular (LV) dilatation, low ejection fraction (EF) and transmural scar, Less Invasive Ventricular Enhancement (LIVE procedure) is a therapeutic option. LIVE is a unique minimal invasive intervention to exclude scarred myocardium, reduce volumes and reshape the LV, while improving HF symptoms. The procedure can be tailored to the unique characteristics of individual scar morphology.

Methods: We herein report 2 cases that highlight this therapy's scope of applicability.

Results: First patient is a 69 year-old male with a mid anterior wall and apical myocardial infarct (MI), which resulted in a dyskinetic scar. Despite guideline-directed medial therapy (GDMT), he was in NYHA class III. Cardiac CT showed a dilated heart with a LV end-systolic volume index (LVESVI) of 82 mL/m^2 and an EF of 24%. Due to recurrent ventricular tachycardia (VT), he underwent endocardial ablation. However, persistent slow VT's were shown during follow-up. As such, he underwent successful LIVE procedure using 3 Revivent TC^{TM} (BioVentrix^{TM}) surgically applied anchors combined with epicardial cryoablation using the Atricure^{TM} CryoICE^{TM}, improving his LVESVI to 52 mL/m^2 (-37%) and EF to 33% (+38%). Post-operative (PO) course was uneventful and follow-up defibrillator interrogation showed no sign of VT's. NYHA class improved to class I.

Second patient is a 62 year-old male who suffered a previous osteal left anterior descending artery MI. This has resulted in extreme LV remodeling, with a LVESVI of 162 mL/m2 and EF of 18% by CT, due to a large highly transmural scar. Despite GDMT, he was in NYHA III. As there was an important septal scar component, he underwent hybrid LIVE procedure with Revivent TC^{TM} system (RV-LV). 5 anchor pairs were used, including 1 internal anchor, 1 Antonius stitch (external RV-LV) and 3 LV-LV anchor pairs. PO course was straightforward and he was discharged on PO day #6. Follow-up CT showed a LVESVI of 60 mL/m2 (-63%), an EF of 44% (+151%) and full scar exclusion.

Conclusion: Hybrid LV reshaping and volume reduction is a safe and effective option in patients with symptomatic HF after MI. The procedure