

HEART TRANSPLANTATION MORTALITY IN RECIPIENTS WITH MUSCULAR DYSTROPHY



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BACKGROUND

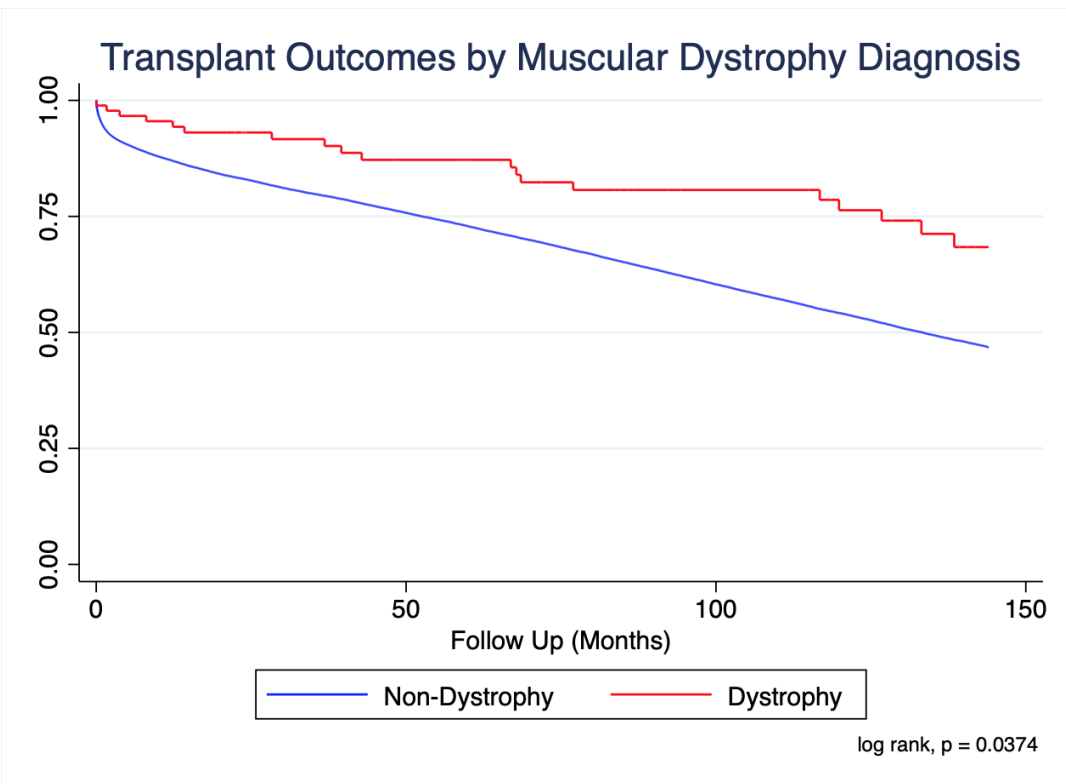
Patients with Muscular Dystrophy (MD) can develop significant cardiomyopathy necessitating heart transplantation (HTx). The United Network of Organ Sharing (UNOS) Organ Registry collects data on heart transplantation. We wanted to compare HTx outcomes between HTx recipients with and without MD.

METHODS

Using the UNOS Organ Registry, we compared mortality rates for HTx recipients with a diagnosis of MD, defined as Becker's Muscular Dystrophy, Emery-Dreifuss Muscular Dystrophy, and Other Muscular Dystrophy in the UNOS Organ Registry. We used a multivariate Cox proportional hazard regression analysis, adjusting for age, sex, diabetes, race, ischemic time, need for dialysis, need for life support, waitlist time, and HLA mismatch. The exclusion criteria included age <10, patients lost to follow-up, and multi-organ transplant recipients. Survival was censored at 10 years.

DATA/GRAPHS

	Non-MD (%)	MD (%)	P-value
Total #	63051	91	
Age ± SD	46.7 ± 19.2	27.5 ± 14.3	<0.001
Male	46495 (73.7)	84 (92.3)	<0.001
White/Caucasian	45625 (72.4)	69 (75.8)	0.98
DM	10689 (20.6)	87 (97.8)	<0.001
Prior Cardiac Surgery	11559 (18.3)	5 (5.5)	0.002
Donor Age ± SD	28.2 ± 14.0	25.3 ± 12.3	0.049
Ischemic Time			1.00
0-1 hr	9469 (15.6)	14 (16.1)	
2<3 hr	18806 (30.9)	26 (29.9)	
3<4 hr	21223 (34.9)	31 (35.6)	
4+ hr	11304 (18.6)	16 (18.4)	
On Life Support (all)	40737 (64.7)	66 (72.5)	0.12
On Life Support (IABP)	3490 (5.5)	5 (5.5)	0.99
On Life Support (Vent)	2681 (4.3)	0 (0)	0.044
VAD	15796 (25.1)	24 (26.4)	0.77
Total Days on Waitlist (+ inactive), mean	83.0	61	0.013
Listing Status			0.72
Inactive	804 (1.3)	0 (0)	0.42
1	47936 (79.3)	75 (83.3)	
2	11712 (19.4)	15 (16.7)	
Smoking	20849 (33.1)	10 (11)	<0.001
Non-CV Death	21529 (67.7)	18 (81.8)	0.16
CV Death	10266 (32.3)	4 (18.2)	0.16



RESULTS

There were a total of 63,051 non-MD HTx recipients and 91 MD HTx recipients in the UNOS Organ Registry. Non-MD HTx recipients were significantly older (46.7 ± 19.2 years versus 27.5 ± 14.3 years, $p < 0.001$), had a lower prevalence of diabetes (79.4% versus 97.8%, $p < 0.001$), were more likely to have had cardiac surgery (18.3% versus 5.5%, $p = 0.002$), had longer waitlist time (83.0 versus 61.0 days, $p = 0.013$), and were more likely to be a smoker (33.1% versus 11%, $p < 0.001$). The 10-year mortality was significantly higher for non-MD HTx recipients compared to MD HTx recipients (45.9% and 23.7% respectively, $p = 0.0374$).

CONCLUSIONS

MD HTx patients have better survival rates compared to non-MD HTx patients despite having a higher prevalence of diabetes. This may be due to MD HTx patients being significantly younger, less likely have had a prior history of cardiac surgery, and having a shorter time on the waitlist. More analyses are needed.

DISCLOSURES

None