

One Size Does Not Fit All: Specialized Care for Unique Cardiac Patients

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Disclosure Statement

- I will not discuss off label use and investigational use of any drugs or devices.
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- The 2016 ISHLT revised cardiac transplantation listing criteria recommends patients to achieve a body mass index (BMI) $<35 \text{ kg/m}^2$ prior to listing.
- Although some studies show that patients with pre-transplant BMI >35 show poorer outcome post-transplant, there is limited data on the BMI group of 35-39.9.

- This study aims to determine the relationship between post-transplant outcomes and a pre-transplant listing BMI of 35-39.9 as compared to a BMI <35.

- Retrospective cohort analysis of patients stratified by BMI subgroup.
- 23,009 adult heart transplant patients from 2009-2018 using the United Network for Organ sharing database.
- Kaplan-Meier analysis univariate and multivariate Cox proportional-hazards models were used to determine the prognostic factors associated with mortality at 90 days, 1 year and 5 year after transplantation.

- Patients with a BMI 35.0-39.9 had post-transplant survival of 92.4% at 90 days, 89.3% at 1 year and 74.5% at 5 years.
- Patients with a BMI < 35.0 had post-transplant survival were 94.6% at 90 days, 91.3% at 1 year, and 79.3% at 5 years.
- No statistically significant difference among the BMI groups for stroke events or acute rejection.
- There was a statistically significant difference in the proportion of dialysis events between the BMI < 35 and BMI 35-39.9, and BMI ≥ 40 group, with rates of 10.5%, 14.0%, and 16.2% for the BMI <35, 35-39.99, and ≥ 40 groups respectively.

- Although a statistically significant increase in mortality was observed between the BMI < 35 and BMI 35- 39.9 groups, this difference may not be clinically significant, with acceptable survival rates observed in the high-risk group.
- Given the acceptable overall outcomes in the BMI 35-39.9 cohort, the benefits of heart transplantation in this group may outweigh the risks, and these patients should be considered as candidates for heart transplantation.

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