IS RACE ASSOCIATED WITH HEALTH-RELATED QUALITY OF LIFE IN OLDER PATIENTS AFTER ADVANCED CARDIAC SURGICAL THERAPIES?


BACKGROUND
Race is associated with heart failure outcomes. There is limited knowledge about the association of race with health-related quality of life (HRQOL) outcomes after long-term mechanical circulatory support (MCS) (i.e., destination therapy) or heart transplantation (HT), especially in older patients.

PURPOSE
The aim of this study was to determine whether race is associated with overall HRQOL in older (60-80 years) patients who undergo long-term MCS or HT (with MCS as a bridge to transplant (HT BTT) or no MCS before transplant (HT Non-BTT)).

METHODS
This study was a secondary analysis of data from the SUSTAIN-IT (SUSTAINability in Advanced heart failure: Integrated Treatment with Endo-Extracorporeal Support) study (SUSTAIN-IT), which has a multi-site, observational, comparative effectiveness research design. All patients at post-operative year 1 included 144 patients with long-term MCS or HT (with MCS as a bridge to transplant (HT BTT) or no MCS before transplant (HT Non-BTT)). Of 305 patients who had surgery (long-term MCS or HT), 161 HT recipients (68 HT BTT, and 93 HT Non-BTT). The sample at post-operative year 1 included 144 patients with long-term MCS or HT (with MCS as a bridge to transplant (HT BTT) or no MCS before transplant (HT Non-BTT)).

RESULTS

- Kansas City Cardiomyopathy Questionnaire-12 (KCCQ-12) is a 12-item heart failure–specific HRQOL questionnaire with four domains: physical limitations, symptom frequency, social limitations, and QOL, which combine to create an overall summary score (OSS).
- Patients completed self-report HRQOL surveys before surgery and after surgery at 3, 6, 12 months.
- Medical records data were collected by sites or downloaded from STS INTERMACS at regular intervals.

**Inclusion criteria**
- Advanced heart failure
  - listed with the United Network for Organ Sharing (UNOS) for a “primary” HT (HT BTT or HT Non-BTT) or
  - being considered for/scheduled to receive a “primary” long-term LVAD with a low probability of cross-over to HT
- Able to speak, read, and understand English
- Willing to participate, provide written informed consent

**Exclusion criteria**
- Prior HT or listed for multiple organ transplantation
- Long-term MCS candidate with a prior MCS device
- SUSTAIN-IT study participants were recruited and enrolled between 10/1/2015–12/31/2018. Of 635 patients with advanced heart failure approached, 396 were recruited and enrolled in SUSTAIN-IT at 13 U.S. medical centers with HT and MCS programs.
- The sample at post-operative year 1 included 144 patients with long-term MCS, and 161 HT recipients (68 HT BTT, and 93 HT Non-BTT). Of 305 patients who had surgery (long-term MCS or HT), follow-up data were available at 12 months for 107 patients in the long-term MCS group, 56 patients in the HT BTT group, and 87 patients in the HT Non-BTT group.

**Measures and Procedures**
- The multivariable linear mixed models revealed that race was not a risk factor for poorer HRQOL outcomes using the KCCQ-12 OSS.
- White participants (long-term MCS group) had, on average, a higher KCCQ-12 OSS than minority participants; however, the association of race with overall HRQOL was not statistically significant at 1 year.
- Sex (male), HT BTT and HT Non-BTT were associated with higher KCCQ-12 OSS, while NYHA class III/IV, and number of post-operative adverse events were associated with lower KCCQ-12 OSS (model IC0-33).}

**Statistical Analyses**
- Descriptive statistics
- mean + standard deviation (SD)
- -counts/percentages
- Multivariable linear mixed models
- Covariates at the p = 0.2 level from the univariable analysis were included in the multivariable model.
- Race and surgical strategy were forced into the multivariable model
- Statistical significance was set at p < 0.05

**CONCLUSIONS**
- Race was not significantly associated with overall HRQOL.
- Race was defined as a single biological variable, rather than a social construct, which may have influenced findings.

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