**THE USE OF EXTRACORPOREAL MEMBRANE OXYGENATION FOR CARDIAC INDICATIONS: A TERTIARY CENTER EXPERIENCE**

**M. Rivera1**, R. Mendirichaga1, S. Chaparro2, M. Murman1, V. Singh2, R.N. Cardoso1,

G. Fernandes1, M. Pardinas3, S. Dickens4, S. Krick4

1. University of Miami Leonard M. Miller School of Medicine, Cardiovascular Division, Department of Medicine, Miami, USA

2. University of Miami Leonard M. Miller School of Medicine, Cardiovascular Division, Miami, USA

3. University of Miami Leonard M. Miller School of Medicine, Pulmonary Medicine Division, Department of Medicine, Miami, USA

4. University of Miami Leonard M. Miller School of Medicine, Pulmonary Medicine, Miami, USA

*Background*: Venoarterial extracorporeal membrane oxygenation is an alternative for the management of the severe decline of cardiorespiratory functions. VA-ECMO can be used adjunctively with other supportive and pharmacological measures once these have been exhausted. This review focuses on our experience with short-term mortality for patients requiring VA-ECMO for cardiac indications.

*Methods:* We performed a retrospective cohort analysis of patients requiring VA-ECMO at a tertiary academic medical center. Patients placed on extracorporeal cardiopulmonary support from January 2008 to June 2015 for cardiac indication were identified and included in our analysis.

*Results:* We identified 46 subjects with cardiac indications for VA-ECMO. Mean population age was 55.23 ± 14.44; men composed 71.7% of our population; the majority were non-Caucasians (Hispanics: 41.3% and African-Americans: 39.3%). Mean duration of ECMO was 5.1±5 days. The association of ECMO duration with 30-day mortality was not significant (p=0.48). Patient distributions by cardiac indication for VA-ECMO were: post- cardiotomy failure to wean from cardiopulmonary bypass (34.78%), post-cardiac arrest (32.6%), refractory cardiogenic shock (19.57%), bridge-to-bridge (6.52%), and massive pulmonary embolism (6.52%). Overall 30-day mortality was 71.74%. Cause of death varied by indication: cardiogenic shock, cardiac arrest and septic shock were the most frequent. VA-ECMO rescue for prolonged cardiac arrest had the worse outcomes: 30-day mortality of 93%.

*Conclusion:* Consensus recommendations on adequate VA-ECMO use were published by the extracorporeal life support organization in 2014. Aproximately, 25% of our population was enrolled after 2014. Obstacles such as delay to ECMO initiation could account for the dire prognosis encountered in our study.