Abstract: **P100**

**Prospective mid-term assessment of frailty in patients implanted with left ventricular assist devices—any reversibility within different domains?**

**Authors:**
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**Topic(s):**
Ventricular Assist Devices

**Citation:**

Background
The coalescence of the frailty phenotype and advanced heart failure (HF) presents a unique opportunity to assess any LVAD mediated improvement of cardiac output that may potentially improve the slowness, weakness, fatigue, weight loss and physical inactivity that comprise the frailty phenotype. We sought to determine whether implantation of LVAD could improve frailty in Chinese population.

Methods:
From March 2015 to May 2018, 24 patients (pts) with advanced HF underwent LVAD implantation and 16 pts who remained on LVAD support for 18 months were assessed serially every six months. A new multidisciplinary objective assessment of frailty with relevance to local Chinese population was designed to enable serial reassessment of patient’s clinical progress. The total maximum scores ranged from 0-7 [1. Physical score 0-5 namely exhaustion, poor appetite, weak hand grip, 6 minute hall walk test <400m and reduced physical activity; 2. Cognitive (Montreal Cognitive Assessment-Hong Kong) <22= 1; 3. Depression (Hospital Anxiety and Depression Scale) >= 1].

Results:
During the period studied, 5 pts received heart transplantation and 3 pts died. Mean age of remaining 16 pts (94% men) was 53±13 years old. There was significant reduction in total frailty score mainly driven by significant reduction in physical domain. However, frailty was only completely reversible in 8 pts (50%). Improvement in frailty post LVAD were not associated with significant differences in measures of mood or cognition. (Figure 1)

Conclusions
The components of the frailty phenotype in pts with post LVAD surgery all have significant improvements. Absences of any association between improvements in the frailty phenotype and mood or cognition warranted further focused attention in the rehabilitation program for LVAD pts.
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Estimated Marginal Means of Total Frailty Score

Error bars: 95% CI