Quality of Life (QOL) for Advanced Stage Heart Failure (ASHF) Patients with Smallest Heart Support System: HeartWare Ventricular Assist Device (HVAD)

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Introduction
HVAD is smallest and lightest weight mechanical pump which becomes a new surgical treatment of ASHF. The HVAD program has been designed and established in the Department of Cardiothoracic Surgery (CTSD) of Queen Mary Hospital (QMH) since August 2010. The impact of the HVAD implantation upon the quality of life and satisfaction of patients with ASHF are analyzed.

Objectives
To evaluate the QOL of ASHF patients with post implantation of HVAD therapy.

Methodology
From February 2015 to January 2016, we supported 3 critically ill ASHF patients who had HVAD implantation in QMH CTSD.

Result
We organized a new HVAD program for the 3 ASHF patients. Subjects (n=2, 67%) were male and (n=1, 33%) were female. The mean age was 35.7 (range 19-61) years. Data was available from 3 subjects. QMH CTSD designed a multidisciplinary VAD support team for ASHF patients from pre-operation, post-operation to discharge home.

We empower them with knowledge to care for their HVAD, therefore they were able to resume their normal daily activities, monitor their own vital signs with records and report their conditions. The Minnesota Living with Heart Failure Questionnaire (MLHFQ) was designed to measure the health related quality of life (HRQOL) pre and post HVAD. Higher scores indicate worse HRQOL. Pre-operative mean score was 61.7 (range 36-80) compared to post-operative 31 (range 1-64). The mean score of MLHFQ was significantly improved by 49.8% which demonstrated a better QOL post HVAD implantation. All 3 patients showed improvement from New York Heart Association functional Class III/ IV symptoms to Class I/II post HVAD implantation.

Patients with ASHF who have marked functional limitations and impaired QOL derive significant improvement in heart failure-related quality of life following implantation of...
All 3 HVAD patients have significant improvement in QOL with reduction of heart failure symptoms.