Service Priorities and Programmes

Electronic Presentations

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Bridge to Decision in Patients with Acute Cardiac Failure – Hong Kong Experience with the Thoratec CentriMag Ventricular Assist Device (VAD)

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Introduction

The newest magnetically levitated centrifugal-flow CentriMag VAD may benefit critically ill patients with severe acute cardiac failure to improve survival and quality of life. Patient's emotions involved were predominantly desperation and sorrow but the new experience appeared to be lifesaving. Four patients were successfully implanted with the latest centrifugal-flow CentriMag VAD technology which appeared promising.

Objectives

(1) To promote a nurse-led innovative care for patients with Thoratec CentriMag VAD;
(2) To enhance a better partnership with patients and their families.

Methodology

Department of Cardiothoracic Surgery (CTSD) at Queen Mary Hospital supported four acute cardiac failure patients with CentriMag VAD as a bridge to decision from September 2012 to December 2012.

Result

Patients ranged in age from 13 years to 56 years. Mean age was 42 years. Subjects (n =1, 25%) were male and (n =3, 75%) were female. Two patients were started with VA-ECMO (n=2, 50%) whereas three patients (n=3, 75%) had intra aortic balloon pump therapy (IABP) prior to the insertion of CentriMag VAD. Three patients (n=3, 75%) had the implantation of CentriMag Bi-VAD. One patient (n=1, 25%) had the implantation of CentriMag Left VAD. Indications for CentriMag VAD were acute myocarditis (n=2, 50%), dilated cardiomyopathy (n=2, 50%), cardiogenic shock (n=2, 50%). All patients suffered from acute cardiac failure. Duration of having CentriMag VAD was ranging from 11 days to 98 days. Three patients received successful cardiac transplantation from September 2012 to November 2012, having had CentriMag VAD as a bridge to cardiac transplantation. One patient received successful bridging to Heartmate II as a long-term left ventricular assist device in December 2012. All four patients remain alive and well. Clinical collaborative management, which included multidisciplinary care team and patients' families, improved outcomes of the

CentriMag VAD support. Patients were most benefited from this CentriMag VAD as a bridge to decision and later to transplant or further treatment. Some patients were able to restore ambulation with the CentriMag VAD. Psychological support and nursing interventions to optimize quality of life were assisting the patients to adapt to change, becoming self-empowered and regaining control of life. Continuing supportive relationship between the patients and families and nursing team were maintained.