Symposium: Heart failure management for the elderly

Guest Editor: Prof. Doris SF Yu

Effective management for older people with heart failure: from acute to palliative care paradigms

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Heart failure (HF) had emerged as an epidemic since two decades ago and is now a major threatening public health problem affecting 23 million population worldwide.^[1] It is a complex clinical syndrome resulting from inefficient myocardial pumping. As it is commonly presented as the end manifestation of various cardiac diseases which compromise the myocardial contractility and diastolic function, its prevalence is ten-fold higher among older adults aged 65 or above.^[1,2] Similar to other organ failure, chronic heart failure (CHF) is characterised by a typical progressively deteriorating trajectory punctuated by serious episodes of acute disease decompensation.^[3] The burden of CHF is, therefore, not only manifested at the patients' level in terms of distressing symptoms, functional disability and compromised quality of life, but also directed to the health care system in terms of high hospital readmission and service utilization.

Effective management of HF is a highly prioritized health care agenda to improve patients' outcome and health resource utilization. Basically, there are three mainstay treatments and innovation for HF, including pharmacological treatment, non-pharmacological treatment and/or invasive surgical procedures. Pharmacological treatment refers to the use a range of medical therapy, including diuretics, vasodilators, inotropic agents, anticoagulants, beta- blockers and digoxin, to limit the manifestation of HF.^[4] To optimize the pharmacological effects, non-pharmacological management plays a crucial role. It refers to patients' self-directed actions in close symptom monitoring, prompt care seeking for symptom deterioration, active lifestyle modification (i.e., dietary fluid and sodium restriction, activity as appropriate) and optimal medication adherence.^[5] A substantial level of evidence has indicated the significant association between effective self-care and patients' outcomes including quality of life, morbidity and mortality.^[6,7] As for the invasive surgical procedures, they are usually used for two purposes.

Firstly, percutaneous procedures such as percutaneous transluminal coronary angioplasty are used to prevent or deter the progression of HF among patients with coronary risk to develop HF.^[8] Secondly, another group of more invasive surgical procedure such as ventricular assist device and heart transplant is used for life-saving when medical therapy becomes ineffective during end-stage HF.^[9] Apart from these three main treatment approaches for HF, the progressive deteriorating, debilitating and irreversible disease course of HF also leads to an increased emphasis on using effective end-of-life care model to enhance quality of life of HF patients at an advanced disease stage.^[10]

In this issue, a group of scientists contributed several papers to inform the health care needs and models of care across the different stages of HF. A group of research articles examined the self-care needs of patients who were at high risk of developing HF and those who have already diagnosed with the condition. Dr. Dawkes and her colleagues focused on the high risk group.^[11] They conducted a mixed methods study to explore how patients with coronary heart disease manage their conditions after received percutaneous transluminal angioplasty. Another two papers examined how self-care of HF patients are shaped by their cognitive, psychological and social context.^[12,13] These papers together provide a full scope of knowledge to inform the development of effective self-care enhancement strategies for preventing and managing HF.

Innovative care model and treatment are crucial to manage the complexity of HF. Another group of scientists evaluated and discussed the effects of two strategies to enhance the health outcomes of this group of patients. Dr. Cheng and her colleagues evaluated the effects of a nurse-led HF clinic on hospital readmission and mortality.^[14] In this paper, the design of the care model and the challenges in its delivery were well discussed. Prof. Chair and her colleagues focused on an important invasive surgical treatment for more advanced HF.^[15] They reviewed the development of left ventricular assist device (LVAD) over the years and the associated changes in its clinical value. The challenges in nursing care for HF patients with LVAD at different stages of implementation were also discussed.

With the growing evidence to suggest the clinical importance of end-of-life care for advanced HF,^[16] knowledge about the patients' care needs at advanced disease stage becomes essential to inform service development. In line with this, Prof. Yu and colleagues conducted a study to identify the symptom cluster among patients with advanced HF.^[17] The information informs the development of strategies to improve health-related quality of life among this vulnerable group. Dr. Chan and her team further explored the palliative care needs from the patients' perspective.^[18] The study findings are important to inform the gaps in service for advanced HF management. Besides, Dr. Cao and his colleagues examined the association between type D personality and self-care behaviors in HF patients. They found type D personality was negatively related to self-care maintenance and self-efficacy in Chinese HF patients.^[19]

Finally, the journal greatly appreciates all of the contributors for their hard work to make this specific issue unique to geriatric cardiovascular research.

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