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A LIFE SUPPORT-BASED COMPREHENSIVE TREATMENT REGIMEN DRAMATICALLY REDUCED IN-HOSPITAL MORTALITY OF FULMINANT MYOCARDITIS PATIENTS

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Fulminant myocarditis is chiefly caused by viral infections. Its onset is rapid, progresses quickly, and may lead to severe heart failure, circulatory failure and cardiogenic shock in a short time. Its mortality can be up to 50%–70%. Most importantly, there are no treatment options, and no evidence-based international guidelines or expert consensus statements. Here we provide the first expert consensus – the Chinese Society of Cardiology Expert Consensus Statement on the Diagnosis and Treatment of Fulminant Myocarditis – based on data from our recent registered clinical trial. In this statement, we describe for the first time its clinical features and diagnostic criteria, and importantly, a new treatment regimen, 'life support-based comprehensive treatment regimen'. This comprehensive treatment regimen includes meticulous nutritional and fluid management, administration of glucocorticoid, immunoglobulin and antiviral agents, continuous renal replacement therapy, life-support treatments including application of mechanical respirator(s) and circulatory support systems, intra-aortic balloon pulsation (IABP) and extracorporeal membrane oxygenation (ECMO) as well as cardiac pacing if needed. Our practice in multiple cardiac centres demonstrated effectiveness of this treatment by dramatically lowering the mortality of patients with fulminant myocarditis.

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IMPELLA® USE IN PROTECTED PCI AND CARDIOGENIC SHOCK

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Intra-aortic balloon pump (IABP) has been used for many years in high-risk PCI or cardiogenic shock. However, the support provided by IABP is limited and a major randomised controlled trial failed to demonstrate a beneficial effect.¹ Impella® is a family of percutaneous mechanical circulatory support (MCS) devices that are used in protected PCI and cardiogenic shock.² Depending on the device model, they provide a blood flow ranging from 2.5 to 5 L/min. The resulting augmented support increases mean arterial blood pressure, cardiac output and coronary flow while unloading left ventricular filling pressure to reduce myocardial oxygen demand.^{2–3} This is an ideal

form of temporary support device for the patient. Moreover, the device is easy to set up and can be inserted very quickly to stabilise the patient. This presentation provides a review on the current data regarding the use of Impella MCS devices.

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ECMO AND MCS FOR PATIENTS UNDERGOING PCI: EXPERIENCE FROM TAIPEI VETERANS GENERAL HOSPITAL

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Intra-aortic balloon pump (IABP), which simultaneously augments coronary blood flow and decreases myocardial oxygen demand, usually provides haemodynamic support in patients with impaired left ventricular function undergoing percutaneous coronary intervention (PCI)^{1–2} or for patients with established cardiogenic shock.³

Several observational studies have reported that prophylactic IABP insertion could reduce major adverse cardiovascular events (MACE) compared with a provisional counterpulsation strategy during high-risk PCI.⁴ However, meta-analysis did not reveal a benefit of routine elective use of IABP or percutaneous ventricular assisted device.⁵ Due to a lack of national data from Taiwan, this presentation therefore summarises the experience at Taipei Veterans General Hospital, and the patients' clinical characteristics and long-term outcomes including cardiac mortality and MACE associated with high-risk PCI and/or acute myocardial infarction.

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