

ECMO Application in Acute Myocardial Infarction Complicated with Cardiac Arrest

Bin Liu, Cardiology Department, the Second Hospital of Jilin University

Cardiac arrest occurs among about 2.5%-11% acute myocardial infarction patients, with an unacceptable high mortality. Besides early revascularization, mechanical circulatory support is proved to be another key factor to improve survival rate. Hemodynamic support can prevent episodes of hypotensive and low-cardiac output in patients with cardiac arrest, thereby allowing time and providing help to achieve optimal revascularization safely. Extracorporeal membrane oxygenation (ECMO) may provide comprehensive hemodynamic support by replacing the pumping function from the failing heart and the oxygenation function from the congestive lungs for days to weeks, allowing the stunned or hibernating myocardium to resume normal function. It might be better to initiate the mechanical circulatory support early in the disease course before the occurrence of multi-organ failure. Current guidelines about mechanical circulatory support in AMI complicated with cardiac arrest is conservative, more clinical evidence are needed.