

of sepsis included one case of primary native septic arthritis, one chronic tibial osteomyelitis and one bowel perforation. Two patients required surgical debridement to attempt to control their sepsis. Two patients died despite maximal organ support within 72 h of admission to critical care. All three patients had normal left ventricular systolic function, with low stroke volumes unresponsive to volume loading.

**Conclusions and implications** Acute ventricular cardiomyopathy is a common complication of severe sepsis and is difficult to diagnose using standard invasive cardiac output devices commonly used within critical care areas. Trans thoracic echocardiography presents a point of care diagnostic modality that allows rapid, repeatable, reliable assessment of independent ventricular function. Low cardiac output states seen with acute dilated right ventricular cardiomyopathy appear to show little benefit from fluid boluses and poor response to standard pharmacological strategies for septic shock. In the two patients requiring invasive ventilation, death followed within 72 h of diagnosis of right ventricular cardiomyopathy. Surveillance scanning for a impaired and/or dilated right ventricle may allow earlier detection and exploration of alternative treatment strategies. Respiratory failure in severe septic shock associated with right ventricular cardiomyopathy appears to confer a significant increased mortality rate (66%) when compared with a global population (35%) and may aid in prognostication.

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#### ACUTE RIGHT VENTRICULAR CARDIOMYOPATHY IN PATIENTS WITH SEVERE SEPSIS

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**Introduction** There is an increasing awareness that the cardiovascular pathophysiology of sepsis extends beyond vasodilatation and distributive shock. Acute left ventricular systolic dysfunction is seen in 40–60% of patients admitted to critical care who require organ support. The exact distribution, timing and aetiology of this phenomenon remain unclear as does the therapeutic implications. Although often affecting the left ventricle, cases describing synchronous biventricular or isolated right ventricular dysfunction have been described. This septic cardiomyopathy appears to be fully reversible in survivors. We describe three cases admitted to our intensive care unit who were demonstrated to have an acute isolated dilated right ventricular cardiomyopathy using trans thoracic echocardiography.

**Methods and results** 3 patients admitted to the Adult ICU were echoed on admission to the ICU, all with severe sepsis and multi organ failure. Two required invasive ventilation, all three required inotrope and vasopressor support, with two requiring haemofiltration. All patients had CT contrast pulmonary angiography to exclude pulmonary embolus as a differential diagnosis. The source