## Epinephrine/norepinephrine/vasopressin

## Lack of efficacy: case report

A 63-year-old man experienced lack of efficacy while receiving treatment with epinephrine, norepinephrine and vasopressin for septic shock.

The man, who had a history of systemic hypertension, presented with symptoms of fevers, chills, non-productive cough and epigastric pain for 3 days. Investigations revealed the following: lactic acidosis, serum creatinine 2.34 mg/dL, haemoglobin 21.6 g/dL, haematocrit 65.6%, serum protein 6.4 g/dL, albumin 3.5 g/dL and normal liver enzymes. Testing for severe acute respiratory syndrome coronavirus 2 was positive. Despite volume crystalloid resuscitation and broad-spectrum antibiotics [specific drug not stated], his condition rapidly deteriorated and required initiation of vasopressors (norepinephrine, vasopressin and epinephrine), intubation and mechanical ventilation. A CT scan of the chest and abdomen showed scant peripheral ground-glass infiltrates but was unrevealing for a cause for his abdominal pain or source of septic shock. On echocardiogram, bilateral ventricular function was normal; there was a pericardial effusion without signs of tamponade. Over the next few hours, despite ongoing resuscitation, vasopressor requirement increased, lactic acid rose to >20 mmol/L, and serum protein and albumin dropped to <3.0 g/dL and <1.5 g/dL, respectively. His vasopressor requirements were norepinephrine at 1 µg/kg/min, vasopressin 0.03 units/min and epinephrine 0.15 µg/kg/min [routes not stated]. He showed tense anasarca, contractures of extremities and significantly increased creatine kinase (rhabdomylosis). He developed compartment syndrome of all four extremities.

The surgical team then performed fasciotomies of both arms and both lower legs. Up to that point, he had received 15L balanced crystalloid and had been initiated on continuous renal replacement therapy. However, despite maximal supportive care, his condition continued to decline. His family decided to withdraw care approximately 24 hours after admission.

Case R, et al. Systemic Capillary Leak Syndrome Secondary to Coronavirus Disease 2019. Chest 158: e267-e268, No. 6, Dec 2020. Available from: URL: http:// doi.org/10.1016/j.chest.2020.06.049

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