

Multiple drugs

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Lack of efficacy: 3 case report

In a case report series, three patients (two women and one man), aged between 62 and 85 years were described; they exhibited lack of efficacy during treatment with heparin, alteplase, enoxaparin sodium, norepinephrine or dobutamine for COVID-19 pneumonia [all routes and dosages not stated].

Case report 2 (85-year-old woman): The woman was admitted in the emergency department for high fever, dry cough, asthenia, rhinorrhoea, diarrhoea and dyspnoea for 15 days. One day following the admission, she was transferred in the ICU due to hypoxemic respiratory failure. She was diagnosed with COVID-19 infection. She had a history of systemic hypertension treated with unspecified angiotensin converting enzyme inhibitor and diuretics, diabetes controlled by insulin and chronic kidney failure without haemodialysis. Physical examination showed deterioration of her general condition. She was hypoxaemic. Oxygen therapy was started. Complete blood count revealed high levels of troponin I, CRP and WBC. ECG showed sinus normocardia and right fascicular block. CT scan showed 90% of lung damage. Transthoracic echocardiogram showed left ventricle hypertrophy, dilated right ventricle with limited function and intra right cavity thrombus. She was treated with unspecified antibiotics, dexamethasone 6 mg/day and tinzaparin-sodium [tinzaparine]. On the 2 day of admission, hypercapnia was noted. Non-invasive ventilation was started. On the 5 day of admission, dyspnoea, agitation and hypoxemia were noted. Orotracheal intubation was indicated. She received norepinephrine 0.05 µg/kg/min and dobutamine 2 µg/kg/min for haemodynamic instability. On the same day, transthoracic echocardiogram showed severe dysfunction of right ventricle, hyperechoic and mobile mass. Low cardiac index and high systemic vascular resistance were noted. Hence, norepinephrine dose decreased to 0.05 µg/kg/min and dobutamine dose increased to 4.6 µg/kg/min. She was treated with alteplase [Actilyse] 100mg for 2 hours, followed by unfractionated heparin. On 7 day of admission, haemodynamic impairment complicated by cardiac arrest was noted.

Case report 3 (62-year-old woman): The woman was diagnosed with SARS-CoV-2 and admitted to the ICU. She had a history of pulmonary fibrosis, muscle soreness, dry cough and fever for 4 days. Her general condition rapidly worsened, and she developed acute respiratory distress syndrome, multiple organ failure and state of shock. Upon admission, she was hypoxaemic. Non invasive ventilation was started. Blood work showed high levels of D-dimer, fibrinogen, troponin, ferritin, elevated inflammatory markers, acute renal failure and lymphopaenia. ECG showed dilated right cavities and mobile, linear and large-sized echogenic thrombus in the right atrium. She was intubated. She was treated with dobutamine 1 µg/kg/min, norepinephrine [noradrenaline] 0.3 µg/kg/min, unfractionated heparin 500 UI/kg/day and antibiotics. Two days after, veno arteriel extra corporeal membrane oxygenation was started. Following resolution of cardiogenic shock, veno-venous extra corporeal membrane oxygenation was started. Acute renal failure was treated by venovenous haemodiafiltration. After nine days, she developed cardiac arrest due to multiorgan failure and septic shock.

Case report 4 (65-year-old man): The man was admitted to hospital with emphysematous lungs and diabetes. Eight days previously, he was diagnosed with COVID-19 infection for dyspnoea. CT scan showed diffuse ground-glass infiltrates of the both lungs. Physical examination revealed worsened general condition, haemodynamic stability and pulmonary crackles. Hypoxaemic respiratory failure was noted. Oxygen therapy was started. ECG showed sinus normocardia and extrasystol. Transthoracic echocardiogram showed left ventricular ejection fraction at 48%, mid-segment hypokinesia and thrombus in the right ventricle. Blood analysis revealed high levels of D-dimers, ferritin, CRP and WBC. He was treated with antibiotics, unspecified dexamethasone 6 mg/day and enoxaparin sodium [enoxaparine] 100 UI/kg/12h. On 3 day of admission, commotion state and rapidly deteriorated condition were noted. Cardiogenic shock was installed. He received alteplase [Actilyse] 100mg for 2 hours. He was intubated. He started on norepinephrine [noradrenaline] 0.25 mcg/kg/min and dobutamine 0.5 mcg/kg/min. On the same day, transthoracic echocardiogram showed severe dysfunction of right ventricle, hyperechoic and floating mass. Despite thrombolysis, he did not improve hemodynamic and developed cardiac arrest. He did not recover following cardiac massage.

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