Hyaluronic-acid

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Diffuse alveolar haemorrhage and myocardial infarction: case report

A 38-year-old transgender male to female patient developed diffuse alveolar hemorrhage (DAH) with acute myocardial infarction during treatment with hyaluronic acid for soft tissue augmentation.

The patient presented with sudden onset of severe respiratory distress. Physical examinations disclosed crepitation at right lower zone on auscultation and chest X-ray revealed bilateral diffuse ground-glass opacities. Laboratory investigation revealed leucocytosis with neutrophilic predominance (total white cell count: 18.87 x 10^3/µL), neutrophil 89% and lymphocyte 6%) and a slight increase in the C-reactive protein level. Within 24 hours of admission, the patient oxygen requirement increased and oxygen saturation ranged from 80 to 85% under high flow mask oxygen 15 l/min.

The patient subsequently intubated and ventilated, requiring high ventilatory setting to maintain acceptable oxygenation that indicating diffuse alveolar haemorrhage. COVID-19 polymerase chain reaction (PCR) were negative. The patient did not improve with broad-spectrum antibiotic and continued to have episodes of diffuse alveolar haemorrage, resulting decreased of 4 g/dL of haemoglobin within hours and progressive decrease in oxygenation. Subsequently, the patient was treated with methylprednisolone and as a result, the patient's alveolar haemorrhage episode improved and improvement in oxygenation were temporarily noted. However, within the next few hours the patient's inotropic support began to increase markedly. The 12-lead ECG revealed anterolateral ST-elevation with elevated TroponinI level of 4,000 pg/mL. The patient's condition continued to deteriorate clinically and eventually the patient died of acute myocardial infarction. Autopsy was not performed. Subsequently, the patient's detailed social history showed that the patient had lived as a transwoman for the past 11 years. The patient had injected herself with different types of medications purchased online which included hyaluronic acid filler along with estradiol [oestradiol], progesterone, ascorbic acid [vitamin C] and hyaluronidase. The patient had been taking these medications regularly with no previous complications. The patient had injected hyaluronic acid fillers into the breasts and gluteal area with a total volume of 100mL. The patient had injected the hyaluronic acid dermal filler a few hours before developing respiratory symptoms. It was concluded that the DAH and acute myocardial infarction was secondary to hyaluronic acid.

Che Ani AA, et al. Diffuse alveolar haemorrhage and myocardial infarction: life-threatening effects from self-injected hyaluronic acid dermal filler. Monaldi Archives for Chest Disease 91: No. 4, 22 Jul 2021. Available from: URL: http://doi.org/10.4081/monaldi.2021.1845

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