

noted over the body. Saturation was 100% on high flow mask oxygenation.

Bedside echo found an enlarged right ventricles with a plethoric inferior vena cava. Electrocardiogram showed sinus tachycardia with an S1Q3T3 presentation. Arterial blood gas showed metabolic acidosis, lactate of 14 and pO₂ of 239. His full blood count was normal except total white cell of 23.5/uL. D-dimer recorded 6498ng/mL. Also sustained closed fracture distal third tibia.

The patient was brought into ICU and intubated. Patient was thrombolysed with intravenous metalyse based on ECHO findings and D-dimer. However, CTPA done showed pulmonary fat embolism instead of pulmonary artery thromboembolism as no filling defect was seen.

DISCUSSION

There is no gold standard test for diagnosing FES; it is a clinical diagnosis. The Classical triad of respiratory symptoms, neurological abnormalities, and petechial rashes may not be all present. Gurd & Wilson criteria for diagnosis of fat embolism require 1 of 3 major criteria and four minor criteria. A chest x-ray is usually normal initially but may reveal increasing diffuse bilateral pulmonary infiltrates. ECG of S1Q3T3 does not confirm pulmonary embolism but rather acute pressure and volume overload of the right ventricle. The presence of fat globules, either in sputum, urine, wedged pulmonary catheter or even bronchoscopy to diagnose FES lack specificity and sensitivity.

CONCLUSION

In the patient presenting with a syndromic interpretation of acute respiratory distress, a high index of suspicion of fat embolism should be

entertained especially if there was a recent trauma to the skeletal system. However, a non-traumatic situation like acute pancreatitis and sickle cell crisis may also cause fat embolism syndrome.

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COGNITIVE REASONING OF AN EMERGENCY PHYSICIAN

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Clinical reasoning describes cognitive process involved in medical decision-making. This process requires effective cognitive skill to arrive to a final diagnosis through a series of inferences derived from medical histories, physical examination findings as well as laboratory data. Effective decision making is very important in emergency department which is loaded with the highest decision densities as well as diagnostic uncertainty among all other medical fields. Emergency physicians are not only facing the physical challenges of doing long hour, demanding shift work but also mental challenges of high cognitive load. Various clinical decision making strategies have been reported by literatures but no research has yet to define the prevalence of any of them. Using a real case scenario of a 34 years old Sarawakian lady presented with respiratory distress to Emergency & Trauma Department of Hospital Sultanah Aminah Johor Bahru who eventually succumbed to endotracheal

intubation with a final diagnosis of advanced retroviral disease with pneumocystis pneumonia (PCP), various types of clinical decision making strategies are being discussed in different clinical phases before arriving to the final diagnosis. The advantages and disadvantages of each method are also being highlighted. In conclusion, there should be increase emphasize on learning and teaching decision making strategies and it's underlying cognitive phenomena to help emergency physicians' clinical decision process become more effective and less error prone.

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A CASE OF TRAUMATIC CARDIAC TAMPONADE – TEMPORIZED BY ULTRASOUND GUIDED PERICARDIOCENTESIS

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INTRODUCTION

Cardiac tamponade is a life threatening injury following trauma where life can be saved with appropriate and timely intervention. Several studies have been published about management of cardiac tamponade comparing pericardiocentesis vs open surgery. In absence of cardiothoracic surgeon, pericardiocentesis remains the only option for treatment for cardiac tamponade. We present here a successful case of cardiac tamponade managed solely by pericardiocentesis under echo guidance.

CASE REPORT

A 37 year old man involved in motor vehicular accident was brought to emergency services by local EMS services. On presentation he was restless and agitated, tachypneic with vital sign in extremis. Bedside ultrasound shows no free fluid in abdomen and positive sliding sign in lungs however echo shows pericardial fluid collection with diastolic ventricular collapse. Pericardiocentesis were performed successfully under ultrasound guidance and catheter was anchored for future aspiration. Vital improved following pericardiocentesis, but patient required intubation due to type 1 respiratory failure due to lung contusion. He was subsequently transferred to centre with cardiothoracic unit. Patient was subsequently discharged well on day 15.

DISCUSSION

While studies have shown superiority of open heart surgery compared to pericardiocentesis, but in centers without cardiothoracic surgery, option to surgery is not available. As such pericardiocentesis might be the only option available, and sometimes may be the only treatment needed without proceeding to surgical repair as seen in this case. Medical literature is scarce regarding comparison of pericardiocentesis as sole management for cardiac tamponade vs open heart surgery in trauma. More study needed to compare between this two methods to find out if pericardiocentesis alone could be successful in managing traumatic cardiac tamponade.