We report a case study of fat embolism seen on ultrasound at right internal jugular vein during central venous cannulation in a patient diagnosed with fat embolism syndrome. This case demonstrates the importance of ultrasound for evaluation of trauma cases with suspicion of fat embolism” Adi et al (2019).

Abstract:

BACKGROUND: We report a case study of fat embolism seen on ultrasound at right internal jugular vein during central venous cannulation in a patient diagnosed with fat embolism syndrome. This case demonstrates the importance of ultrasound for evaluation of trauma cases with suspicion of fat embolism.

CASE PRESENTATION: A 23-year-old trauma patient with closed fracture of left femoral shaft and left humerus presented to our emergency department (ED). 11 h after admission to ED, patient became confused, hypoxic and hypotensive. He was then intubated for respiratory failure and mechanically ventilated. Transesophageal ultrasound revealed hyperdynamic heart, dilated right ventricle with no regional wall abnormalities and no major aorta injuries. Whole-body computed tomography was normal. During central venous cannulation of right internal jugular vein (IJV), we found free floating mobile hyperechoic spots, located at the anterior part of the vein. A diagnosis of fat embolism syndrome later was made based on the clinical presentation of long bone fractures and fat globulin in the blood. Despite aggressive
fluid resuscitation, patient was a non-responder and needed vasopressor infusion for persistent shock. Blood aspirated during cannulation from the IJV revealed a fat globule. Patient underwent uneventful orthopedic procedures and was discharged well on day 5 of admission.

CONCLUSIONS: Point-of-care ultrasound findings of fat embolism in central vein can facilitate and increase the suspicion of fat embolism syndrome.

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