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Fat embolism syndrome: chest CT findings

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Fat embolism syndrome (FES), characterized by the combination of acute respiratory failure, central nervous system involvement, and petechiae, can occur after a trauma or secondary to a disease.[1,2] Here, we describe the case of a 72-year-old woman admitted to our hospital due to traumatic pertrochanteric fracture of the left femur. The patient had a medical history of systemic lupus erythematosus, positivity for antiphospholipid antibodies, deep vein thrombosis, use of a ventricular demand rate-responsive pacemaker, and aortic valve replacement due to severe stenosis. At admission, she was hemodynamically stable. Thirty-six hours after admission, she underwent orthopedic surgery involving the use of gamma nails (Stryker, Kalamazoo, MI, USA). On the first postoperative day, she presented with acute dyspnea, confusion, and agitation. Her vital signs were as follows: blood pressure, 100/60 mmHg; HR, 103 bpm; temperature, 37.1°C; RR, 26 breaths/min; and SpO_2, 75% on room air. Contrast-enhanced CT scans of the chest excluded pulmonary artery embolism and revealed peripherally located ground-glass opacities and bilateral patchy consolidations, as well as dilation of the pulmonary artery, right atrium, and right ventricle (Figures 1 and 2). Ten days later, a control CT scan showed complete regression of the lesions (Figure 3). Therefore, findings on CT scans can reflect the pathophysiology of FES and contribute to its diagnosis.[3]

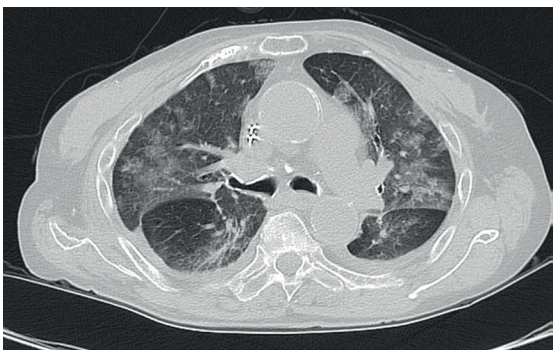

Figure 1. CT scan of the chest revealing peripherally located ground-glass opacities and bilateral patchy consolidations.

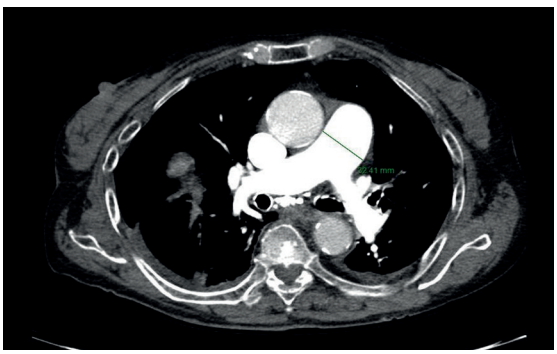

Figure 2. Contrast-enhanced CT scan of the chest showing dilation of the pulmonary artery.

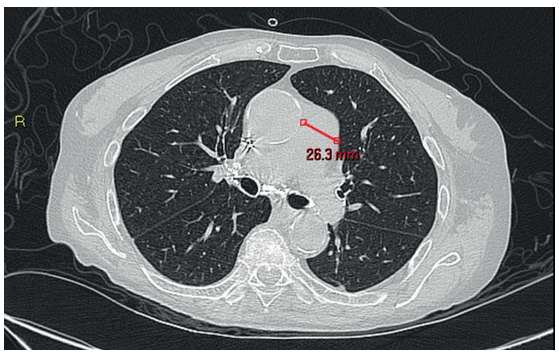

Figure 3. Control CT scan showing complete regression of the lesions.

REFERENCES

1. Akhtar S. Fat embolism. Anesthesiol Clin. 2009;27(3):533-50, table of contents. https://doi.org/10.1016/j.anclin.2009.07.018
2. Gurd AR, Wilson RI. The fat embolism syndrome. J Bone Joint Surg Br.1974;56B(3):408-16. https://doi.org/10.1302/0301-620X.56B3.408
3. Malagari K, Economopoulos N, Stoupis C, Daniil Z, Papiris S, Müller NL, et al. High-resolution CT findings in mild pulmonary fat embolism. Chest. 2003;123(4):1196-201. https://doi.org/10.1378/chest.123.4.1196

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