

Fat Embolism Syndrome (FES), a classic triad

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Description

A 20-year-old man presented diaphyseal fractures of the right femur, tibia, and fibula following an accident. The emergency services transported him to the nearest hospital where he underwent immobilization with a splint. Subsequently, he was referred to our center 7 hours after the accident, presenting agitation and loss of consciousness at 10 hours post-admission. Osteotaxis of the fractures was performed with inability to extubate him due to desaturation and a Glasgow Coma Scale decline down to 8 points. The images presented here define the classic triad of the FES: A chest CT (Figure 1) shows areas of ground-glass opacities and thickening of interlobular septa [1]; A brain MRI (Figure 2) demonstrates multiple foci of signal alteration (“starfield pattern”) [2]; A photograph (Figure 3) illustrates conjunctival and cutaneous petechiae (that appeared 36 hours after the accident) [3]. The patient spent 15 days in the Intensive Care Unit and 70 in the hospital; he returned to his academic activities 5 months later. FES is more common in young men with long bone fractures; it has no specific treatment, and early fracture fixation and intensive care support for complications are recommended.

Declarations

Ethical considerations: The publication of this clinical case

was conducted following the research protocols established by our institution. Consent has been obtained from the patient for the use of their images and medical history. Likewise, efforts were made to de-identify the patient as much as possible.

Conflict of interest: None

The authors declare that we have no personal or financial conflicts of interest in the publication of our manuscript.

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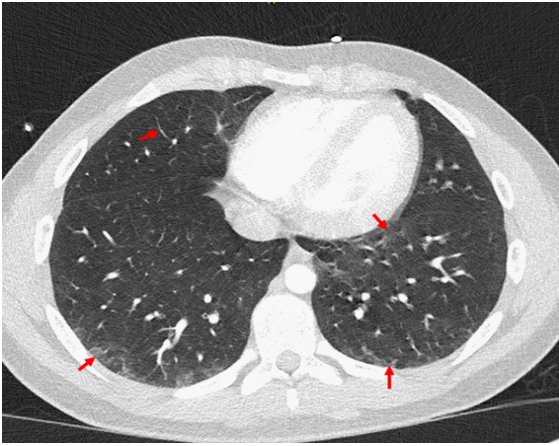


Figure 1: Thoracic CT scan showing areas of ground-glass opacities and thickening of interlobular septa.

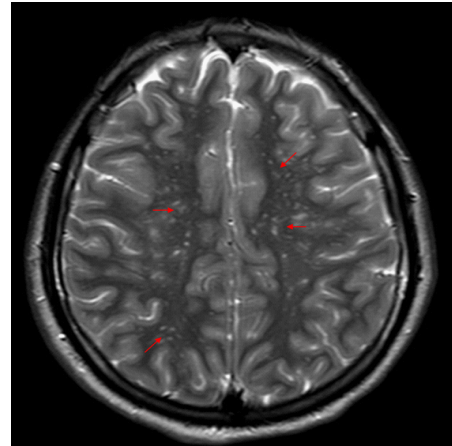


Figure 2: Brain MRI (T2 sequence) showing multiple small foci with an embolic appearance in both cerebral hemispheres.



Figure 3: Conjunctival and cutaneous petechiae that appeared 36 hours after the accident.