

## A RARE CASE OF RAPID ONSET PULMONARY EMBOLISM POST FEMUR FRACTURE

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**Introduction:** Femur fracture is a well-recognized risk factor for pulmonary embolism (PE) however it is relatively uncommon. Recent reports have suggested that the incidence of PE after trauma ranges from 0.1% to 1.8%. PE generally develops as a result of deep vein thrombosis (DVT) and usually happens 5-7 days after hospitalization. However, a transient hypercoagulability state may develop following trauma which puts the patient at risk of developing PE within a few days of injury. The authors present a case of pulmonary thrombo-embolism developed within 12 hours of trauma.

**Discussion:** An 18-year-old gentleman with no known pre-morbid conditions was involved in a motor vehicle accident. He was the motorbike rider with a head-on collision with a Myvi. His injuries included an open fracture of the right midshaft femur and a closed fracture of the right midshaft ulna. Initial vitals showed he was tachycardic but normotensive. There was no tachypnea. There were no thoracic, abdominal, or pelvic abnormalities upon initial imaging workup, and the computed tomography (CT) of the brain was normal. Fluid resuscitation and oxygen therapy were given in the ED with FES as the initial working diagnosis. In the ward, persistent tachycardia was noted, and the ECG revealed S1Q3T3. CTPA showed thrombotic pulmonary embolism of the descending branch of the right pulmonary artery. He underwent wound debridement and internal fixation of the femur and started on s/c fondaparinux post-operatively and oral warfarin upon discharge.

**Conclusion:** Pulmonary thromboembolism is rare in the early post-trauma period but must be considered in patients with multiple long bone fractures, to ensure appropriate management of patients and prevent morbidity and mortality. Post-traumatic hypercoagulability with acute blood loss can cause hypercoagulability, which may precipitate a thrombotic event, necessitating the use of computed tomography pulmonary angiogram to confirm the diagnosis. Preventive measures such as anticoagulation therapy should be started as early as permissible.