

Fatal pulmonary embolism subsequent to the use of Esmarch bandage and tourniquet: A case report and review of literature

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ABSTRACT

We report a case of fatal pulmonary embolism (PE) following exsanguinations of lower limb in orthopedic surgery. A 30-year-old man was posted for fixation of a tibial plateau fracture on the seventh day after injury. Subarchnoid block was performed. Esmarch bandage was used for exsanguination of the limb and tourniquet was inflated. Within three minutes after tourniquet inflation, the patient became unconscious hypotensive, and collapsed. Resuscitation was instituted and spontaneous circulation restored. Right ventricular strain pattern on transthoracic echocardiography, increased levels of D-dimer, and Doppler examination of the lowerlimb confirmed deep venous thrombosis of right femoral vessels and PE. In spite of thrombolytic therapy with streptokinase and heparin, the patient died on the ninth day after the event. Cases of PE secondary to the use of Esmarch bandage and tourniquet are reviewed here to identify the risk groups and management of PE.

Key words: *Esmarch bandage, lower limb fractures, pulmonary embolism, tourniquet*

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