Esmarch® compression bandages were applied from the toes to the groin in preparation for tourniquet ischaemia. At this time, the patient lost consciousness, became apneic and collapsed. Resuscitation procedures were instituted and transoesophageal echocardiography revealed PE. In spite of haemodynamic support and thrombolytic therapy, the patient died.

Post-mortem examination revealed multiple thromboemboli of recent origin in the right heart cavities, in the pulmonary arteries and in popliteal and tibial veins of the injured leg. The pathological mechanism was presumably related to the pressure created by the Esmarch bandage, producing a dislodgement of pre-existing thrombi.⁴

The best approach in the prevention of this catastrophic event lies in the early diagnosis and aggressive management of deep venous thromboembolic disease. This woman had three risk factors: age, venous insufficiency and long bone fracture. Preoperative screening using non-invasive diagnostic procedures, such as Doppler ultrasound examination, would be performed. Also, the indication of Esmarch bandage compression before tourniquet inflation in presence of patients at risk of lower limb deep-vein thrombosis needs to be evaluated. This manoeuvre could have been replaced by an elevation of the extremity to produce a relative bloodless field.

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"3-in-1" Femoral block

To the Editor:

We read with interest the report by Fournier *et al.* on

postoperative analgesia with "3-in-1" femoral nerve block after prosthetic hip surgery.¹ Although the block may be of some help for postoperative analgesia after prosthetic hip surgery, we are concerned with the study design. Performing the block after induction of anaesthesia may be associated with some bias since the obturator provides sensory branches to the hip. Blocking the obturator nerve through a "3-in-1" femoral block may be disappointing. Lang *et al.*² demonstrated only 4% successful obturator block after 30 ml of either lidocaine 1% with 1:200,000 epinephrine or bupivacaine 0.375% with 1:200,000 epinephrine. Singelyn *et al.*³ showed only 40% - 55% successful block was obtained after 40 ml bupivacaine 0.25% followed by a continuous infusion of bupivacaine 0.125% at 10 ml·hr⁻¹ whether the catheter was inserted 10-15 cm, or more than 15 cm, respectively. It is difficult to evaluate, in this surgical context, the value of the 3-in-1 block without knowing if the obturator is blocked. Secondly, performing a peripheral block in an anaesthetized patient does not permit recognition of local anaesthetic associated paresthesias or severe pain, both symptoms of possible nerve injury.⁴

The 3-in-1 block controversy still continues ... is it really 4-in-1 or 2-in-1?⁵ We believe it will be mandatory in future clinical investigations to determine if the obturator nerve has been blocked. Moreover, we recommend that peripheral blocks not be performed anaesthetized patients, to decrease the incidence of complications associated with regional anaesthesia.

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