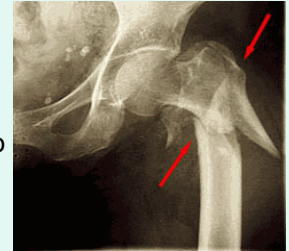


Introducing Emergency Department Fascia Iliaca Compartment Nerve Block for Hip Fractures.

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Patients with hip fractures have a high mortality, averaging 10% at one month and 30% at one year¹. Historically they have received poor analgesic control in the Emergency Department. Regional Anaesthesia, where possible, is an ideal form of analgesia for isolated limb injuries. Emergency Department administered fascia iliaca blocks have been shown to be easily administered, effective and safe². This intervention has been shown to significantly decrease pain, opioid use and sedation in this elderly patient population³. Despite this use is not yet widespread.



Methods

A policy was introduced of offering a Fascia Iliaca Compartment Block at the initial assessment to patients who attended with suspected hip fracture. All ED NCHDs attended a forty minute teaching session on the new technique. Patients were not considered for a fascia iliaca block if there was inability to consent, weight <50kg, and contraindications to regional anaesthesia.

Technique

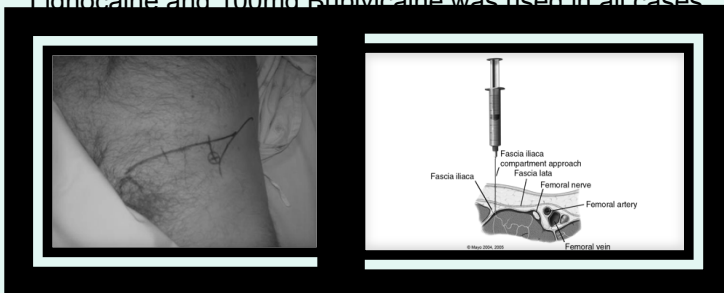
Patient position: Supine with affected leg extended.

Landmarks: The femoral, lateral cutaneous and obturator nerves all run immediately under the fascia iliaca. A line between the Anterior superior iliac spine and the pubic tubercle maps out the inguinal ligament.

This line is then divided into thirds and the point between the middle and lateral thirds is marked.

The local anaesthetic is injected 1cm below this mark.

For the purpose of standardising the block 100mg Lignocaine and 100mg Bupivacaine was used in all cases.



A blunted 23G needle is advanced at 90° through the skin and subcutaneous tissue. Two pops are felt as the needle is advanced - the first when going through the fascia lata and the second when penetrating the fascia iliaca. Once through the fascia iliaca the local anaesthetic is injected.

Preliminary Results

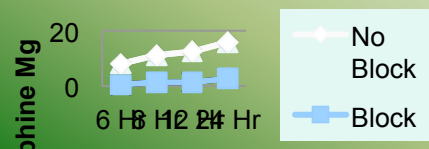
In the first 13 patients who received the block, there were no complications.

Three patients had insufficient analgesia and required additional opiate analgesia due to block failure.

There were significant differences between those who did and did not receive the regional analgesia in the amount of opiates required at 6hrs, 8hrs, 12 hrs and 24 hrs.

There were no differences in success rate of block whether administered by an SHO or Registrar.

Morphine Use vs Time



Conclusion

Fascia Iliaca Compartment Nerve Block significantly reduces opiate use when administered in the Emergency Department to elderly patients presenting with Hip Fractures. The technique has a low complication rate and is equally effective when administered by Registrars and SHOs. This block should be considered as part of the standard bundle of care for a patient presenting to the Emergency Department with a Hip Fracture.

References:

1. Effect of comorbidities and postoperative complications on mortality after hip fracture in elderly people: prospective observational cohort study. JJW Roche et al, BMJ 2005;331:1374
2. Fascia iliaca compartment blockade for acute pain control in hip fracture patients: a randomized, placebo-controlled trial. Foss NB et al, Anesthesiology. 2007 Apr;106(4):773-8.
3. Single fascia iliaca compartment block for post-hip fracture pain relief. Monzon DG et al, J Emerg Med. 2007 Apr;32(3):257-62. Epub 2007 Feb 8.