Ultrasound-Guided Local Infiltration Analgesia for Hip Surgery: preliminary experience

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BACKGROUND AND AIMS

There are several techniques for postoperative analgesia after total hip replacement (THR), but some of them have limitations in the anticoagulated patient and may cause motor block. Recently, new fascial blocks have been described for such surgery: the iliopsoas plane block (IPB)

and the pericapsular nerve group (PENG) block.^{1,2} However, neither of them would anesthetize the sensory branches of the posterior hip compartment. These nerves emerge from the nerve to the quadratus femoris (QF) and from the superior gluteal nerve, and they will eventually pass under the QF towards the hip capsule.^{3,4}

Recently, after Ethical committee approval, we started performing an ultrasound-guided pericapsular local infiltration analgesia (LIA) in patients undergoing THR.

METHODS

The technique is performed with two injections:

- the first is anterior, between the hip capsule and the iliopsoas muscle (20ml Ropivacaine 0,375% + 2mg dexamethasone, FIG. LEFT);
- the second is posterior, between the QF and the hip capsule (10ml Ropivacaine 0,375% + 2mg dexamethasone, FIG. RIGHT).

The standard post-operative iv analgesic protocol is 3g paracetamol+90 mg ketorolac per day, for 48h. So far, 24 patients received this treatment.

RESULTS

No motor block has been recorded. The mean dynamic NRS was $1,03 \pm 1,65$ (st.dev) in bed 12h after surgery, while the 24h and 48h NRS during ambulation was respectively $0,87 \pm 0,99$ (st.dev) and $0,58 \pm 0,93$ (st.dev).

CONCLUSION

In our experience, an ultrasound-guided anterior+posterior LIA has a potential role in postoperative analgesia after THR, and the best outcome preserving the motor function.

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