

presenting with lateral knee pain.^{1, 2} The occupational activity of our patient was consistent with the history of overuse often seen in these patients. Our case highlights the importance of considering this diagnosis in non-athletes presenting with lateral knee pain whose daily routine involves repeated knee flexion. A thorough clinical evaluation should be performed in order to recognize ITBS; key examination findings include focal lateral knee tenderness and a positive Noble compression test. Pain relief after ultrasound-guided ITB injection of steroids and local anesthetics can also confirm the diagnosis and, as in this case, provide excellent therapeutic relief, thus improving the quality of life of those who may have endured years of persistent knee pain.

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The role of the PENG block in hip fracture in elderly patient with severe comorbidities

Hip fracture is a common orthopedic emergency in the elderly, and it is associated with significant morbidity and mortality.¹ The population often presents various comorbidities,² for which less aggressive anesthesiologic conduct is required in order to minimize peri-operative complications. We believe that the use of a low dosage of isobaric levobupivacaine³ for subarachnoid anesthesia, in association with pericapsular nerve group (PENG) block, might be able to reduce intraoperative

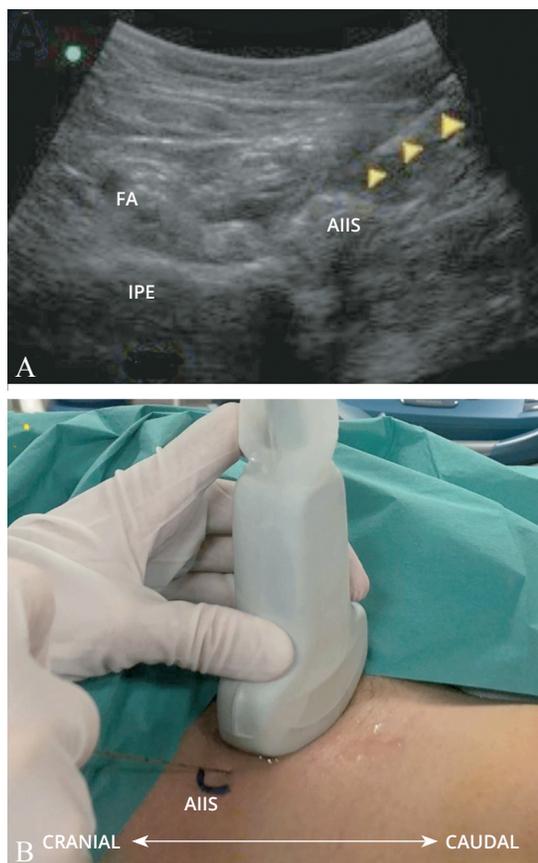


Figure 1.—A) Sonoanatomy; B) anatomical location of the ultrasound probe in the PENG block. AIIS: antero-inferior iliac spine; FA: femoral artery; IPE: iliopectineal eminence; triangles: needle tip in the direction of the tendon of the psoas muscle.

hemodynamic instability, the perception of pain in the postoperative period, and the need for opioids,⁴ also allowing us not to use general anesthesia avoiding its complications.

The case was a 97-year-old man (weight 50 kg), with several comorbidities like: chronic heart failure with 25% of ejection fraction, chronic obstructive pulmonary disease, in home therapy with oxygen and cardioaspirin. The patient was planning to undergo a left total hip replacement (THR) for intertrochanteric femur fracture. Standard vital signs monitoring and peripheral venous access were obtained. The PENG block was performed before subarachnoid anesthesia. In the supine position, a low-frequency convex probe (3-5 MHz) was placed in a transverse plane over the anterior inferior iliac spine and then aligned with the pubic ramus. Fifteen milliliters of levobupivacaine 0.375% was injected using a 21-G, 100-mm, echogenic needle into the musculofascial plane between the psoas tendon anteriorly and the pubic ramus posteriorly. We administered a total dose of levobupivacaine of 75 mg. This subsequently, with the patient in lateral position, subarachnoid anesthesia was performed at L3-L4 space using a 25-G Whitacre needle. Then were injected 5 mg of levobupivacaine 0.5% with selective block, and the patient remained in lateral position for 10 minutes, after the injection of the levobupivacaine.

During the surgical procedure we observed constant hemodynamic stability, in the absence of episodes of hypotension, without the use of vasopressor drugs. Additional analgesics drugs were not administered during the perioperative period.

The combination of these two locoregional techniques made us understand the importance of the execution of the PENG block which allowed the blockage of the pericapsular nerve branches, resulting in the saving of local anesthetic to be used in subarachnoid anesthesia and consequently avoiding hypotensive episodes in this type of patient. In this way we also minimized the side effects and the complications of the same, guaranteeing complete anesthesia during surgery, pain control in the postoperative period and opioid savings,³ also allowing us not to use general anesthesia avoiding its complications (Figure 1).

Literature already describes PENG block like an analgesic technique for hip replacement surgery.⁵ We believe that in the future the use of PENG block in combination with subarachnoid anesthesia allows a better anesthesiologic plane and antalgic coverage especially in patients with high anesthetic risk specially in the hip replacement surgery.

Further studies should be needed to evaluate if the combination of these two techniques could be considered for the anesthesiologic management in the hip fracture of the elderly.

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Esophageal detection method may be a good choice to confirm endotracheal tube placement for patients with COVID-19 infection

COVID-19 has widely and rapidly spread in China and other countries. Health-care workers caring for patients