

PERICAPSULAR NERVE GROUP (PENG) BLOCK FOR EARLY REHABILITATION AFTER TOTAL HIP ARTHROPLASTY: A CASE REPORT

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Background

Effective postoperative analgesia is essential for early mobilization and rehabilitation following total hip arthroplasty (THA). In patients with obesity and respiratory comorbidities, minimizing opioid requirements is particularly important. The Pericapsular Nerve Group (PENG) block is an ultrasound-guided regional anesthesia technique designed to provide analgesia of the hip joint while potentially preserving quadriceps motor function.

Case Presentation

A 74-year-old patient with a body mass index of 34 kg/m², a history of obstructive sleep apnea and chronic obstructive pulmonary disease underwent total hip arthroplasty. Considering the patient's increased risk of opioid-related respiratory complications and the importance of early postoperative mobilization, an ultrasound-guided PENG block was performed as part of a multimodal analgesic strategy.

Following the procedure, the patient demonstrated excellent pain control. Pain intensity during movement decreased from 10/10 preoperatively to 2/10 postoperatively, while pain at rest was practically absent. Adequate analgesia allowed early mobilization and facilitated postoperative rehabilitation. No clinically significant motor impairment or block-related complications were observed.

Conclusion

This case demonstrates the potential value of the PENG block as a component of multimodal analgesia following total hip arthroplasty. In elderly patients with obesity and respiratory comorbidities, the technique may provide effective analgesia while reducing the need for systemic opioids and facilitating early rehabilitation. Further clinical studies are warranted to evaluate its efficacy and safety in high-risk surgical populations.

References:

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