

PARALLEL SESSION 3: *PAIN MANAGEMENT*

TIME: 15:45 - 17:15



14:00 - 14:15

Perioperative Pain Management in Lower Extremity Surgery: Knee Capsule Blocks

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Abstract:

The introduction of the pericapsular nerve group block (PENGB), the adductor canal block (ACB), and the inter-popliteal artery and posterior knee capsule block (iPACKB) have been significant advances particularly for hip and knee surgery. These techniques have been recognized for their effectiveness in managing postoperative pain and facilitating patient recovery.

PENGB has shown promise in improving postoperative analgesia and preserving motor function. Studies indicate that PENGB significantly reduces pain scores, highlighting its utility in postoperative pain management. Comparative analyses between PENGB and fascia iliaca compartment block have not shown significant differences in pain scores within the first 24 hours after surgery. However, PENGB is associated with a substantial reduction in total analgesic consumption during this period.

ACB and iPACKB have emerged as prominent techniques in the major knee surgeries. ACB provides effective pain relief while preserving quadriceps strength, which is critical to reducing complications such as deep vein thrombosis and shortening hospital stays. iPACKB complements ACB by providing additional analgesia to the posterior aspect of the knee, improving overall pain management.

A comprehensive postoperative analgesia protocol, including local infiltration anesthesia at the incision site and multimodal analgesia strategies, is emphasized to ensure uniform analgesia and minimize confounding factors related to skin and capsule innervations.

Adopting these block techniques, which have in common that they are all distal peripheral nerve blocks and do not approach the nerve root or plexus, reflects the dynamic evolution of regional anesthesia techniques in lower extremity surgery. These innovations offer promising avenues for improving postoperative pain management, patient outcomes, and satisfaction.