

REGIONAL ANESTHESIA AS THE PRIMARY ANESTHETIC IN A LOW BODY WEIGHT PATIENT UNDERGOING HIP ORIF: A CASE REPORT

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Background

- With the rapidly aging population, orthopedic surgeries performed on frail elderly patients is expected to increase (1).
- The anesthetic management of geriatric population requires a comprehensive and thorough preop evaluation as the population is susceptible to anesthetic adverse events (2)
- Femur and hip surgeries are commonly performed under neuraxial or general anesthesia (3), however the frail and elderly patient with cardiopulmonary comorbidities may be a poor candidate for both.

Patient Presentation

- An 86 year-old Female with a past medical history of dementia, arthritis, chronic cough, thrombocytopenia, recurrent pneumonia, cholangiocarcinoma, colon CA, breast CA on hospice with BMI of 15 presented for repair of comminuted displaced intertrochanteric fracture of the left proximal femur.
- Surgical plan was left hip ORIF using a short nail.
- Patient on evaluation was noted to be extremely cachectic with multiple areas of skin breakdown and sores, with a chronic cough.

Anesthetic Management

- The decision was made to proceed with regional anesthesia and mild sedation.
- Given patient's low body weight (37.6 kg), Ropivacane 0.375% was utilized with following volumes: PENG (5 mL), Femoral (5 mL), suprainguinal fascia iliaca (10mL), and infrainguinal fascia iliaca (10 mL).
- For the blocks patient received 100 mcg fentanyl in divided doses ad 20 mg propofol.
- Intraoperatively sedation was maintained with propofol 100 mcg/kg/min. Patient also received 1 u PRBC transfusion, 250 ml 5% albumin and antibiotics.
- Patient was hemodynamically stable throughout the case and had an uneventful post operative course. Pt was discharged to rehab on POD #6.

Discussion

- Hip fractures after a fall is a common cause for surgery in the geriatric population (1).
- One of the challenges in delivering effective regional analgesia and anesthesia for hip surgery is the complex innervation of the hip joint.
- Pericapsular nerve group block (PENG) is a regional anesthetic technique developed in total hip arthroplasty for postop analgesia with motor-sparing benefits (4).
- In our case, we were able to effectively anesthetize the surgical site for hip ORIF through a combination of PENG, femoral, supra- and infra-inguinal nerve blocks despite low-volume, low-concentration approach for the frail, elderly patient.
- Regional anesthesia as the primary anesthetic choice should be considered in certain geriatric populations.



References

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