Feasibility of combined spinal – epidural analgesia for implication within enhanced recovery pathways in total hip arthroplasty (THA)

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Background and Aims:

Objective was to assess feasibility of combined spinal epidural anaesthesia (CSEA) as part of ERAS protocol in THA patients.

Study design

Methods:

1. Adult ASA II patients were included.
2. Spinal anaesthesia was performed in L2-3 level with 2.5-3 ml of 0.5% bupivacaine.
3. Postoperative patient controlled epidural analgesia (PCEA) continued until 8 AM next morning.

4. Mobilisation trial was performed at 6 PM on the surgery's day. Patients had to stand without assistance for 60 seconds. Trial failure was defined as bradycardia (HR<50 b/min) and/or arterial hypotension (MAP<55 mmHg).
5. Consumption of bupivacaine, maximum pain intensity during postoperative 24 h with numeric rating score (NRS), patient's overall satisfaction level by score of [0-10] assessed, and mobilisation trial failure/success were recorded.

Results:

Pain (NRS) first 24h (with PCEA regimen)	4 (3;6)
Bupivacaine overall consumption	142.45 ± 34.22 mg
Bupivacaine dose mean/1h	7.09 ± 1.66 mg
Demanded/administered boluses (D/A)	66,67 % (40.78;84.52)
Paracetamol 1g (pain rescue)	2 subjects (2.53 %)
Early mobilization test failed (brady < 50 b/min.)	9 subjects
Minor motor block	4 subjects
Epidural catheter migration	1 subject
Discharge criteria at 48 h (NRS ≤ 3)	All – 79 patients
Patient satisfaction	9 (9;10)

Conclusions:

Postoperative epidural analgesia does not limit early patient mobilisation. The use of CSEA as part of ERAS pathways is feasible in THA surgery patients.

Protocol was part of bigger RCT: Markevicius et al. Electronics and Electrical Engineering, 2016. DOI: <http://dx.doi.org/10.5755/j01.eee.22.1.12826>

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