

Erector Spinae Plane (ESP) Catheters

FOR MAJOR HEPATOBILIARY SURGERY: A CASE SERIES

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Background

Upper abdominal surgery is associated with significant postoperative pain which, if not managed adequately, may delay recovery and increase morbidity. ESP block is a new interfascial plane block described by Forero et al. in 2016.¹ Our aim was to evaluate ESP catheters in major hepatobiliary surgery and their effect on postoperative pain scores, postoperative opiate requirements and postoperative nausea and vomiting (PONV).

Methods

We followed up 7 patients who underwent liver resection or Whipple's procedure and recorded age, sex, ASA class, intraoperative analgesia, postoperative pain scores, PONV and postoperative analgesia requirements.

Results

- ◆ Mean age was 67.3 with 4 females and 3 males. All were ASA 2 or 3.
- ◆ 2 patients had pain scores of 0 both at rest and on movement up to Day 5 post-operatively and had no supplementary opiates.
- ◆ A further 4 patients had a mean of 6.75mg of oxynorm sc on Day 1-5 with pain scores 0-4.
- ◆ 1 patient was considered an ESP catheter failure with 24mg/day PCA morphine on Day 1-4.
- ◆ 1 of the 7 patients had PONV.

Discussion

Previously the practice in our department, with regards to postoperative analgesia for hepatobiliary surgery, mostly consisted of PCA morphine for 3-5 days and a wound catheter infusion of local anaesthetic (0.15% bupivacaine, 8-10mls/hr), inserted by surgeons. Side effects of morphine PCA such as respiratory depression, constipation, itching, nausea and vomiting were not uncommon. ESP block showed a significant reduction in opioid consumption where 2 patients had no pain at all and received no opiates which suggest that ESP block may provide both visceral and somatic analgesia. Our physiotherapists also noticed an earlier return to baseline functional status in patients who received ESP catheters.

Conclusion

ESP catheters show great promise in major hepatobiliary surgery. The number of patients in our series is small. We are looking forward to publishing a comparative study of ESP catheters to standard care in this patient group.

ALL PATIENTS RECEIVED:

- ✓ 8-10 mcg/kg intrathecal morphine pre-induction
- ✓ ESP catheters placed pre-induction at T7 [20 mls bolus of 0.25% bupivacaine and infusion of 0.15% bupivacaine @10mls/hr for 5 days]
- ✓ Fentanyl boli intraoperatively and for the first 12 hours post-operatively
- ✓ Paracetamol & Dexketoprofen if no contraindications
- ✓ Opioids for breakthrough pain Day 1-5 post-operatively as required (sc oxynorm or morphine PCA)

References:

1. Forero M, Adhikary SD, Lopez H, Tsui C, Chin KJ. The erector spinae plane block. A novel analgesic technique in thoracic neuropathic pain. Reg Anesth Pain Med 2016; 41: 621-7

