

RECTUS SHEATH CATHETERS AFTER EMERGENCY LAPAROTOMY: A CASE REPORT

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Background

Rectus Sheath Catheters (RSC) allow infiltration of local anaesthetic into the posterior rectus space. This provides analgesia for midline incisions without the side effects associated with other forms of pain relief. We present a case of RSC use following emergency surgery.

Methods

A 53-year old woman presented with small bowel obstruction. She developed SIRS with lactic acidosis and an acute kidney injury. Emergency laparotomy and bowel resection were performed. Post-operatively the patient remained unstable and was transferred to the intensive care unit for overnight ventilation. The following morning, haemofiltration was instituted due to anuria and rising creatinine. Heparin was used for anticoagulation. A decision was taken to utilise RSC for post-operative analgesia and these were inserted under ultrasound guidance. An initial bolus of 40mls 0.375% bupivacaine was followed by 0.2% ropivacaine via a pump (10mls/hour with an additional PCA bolus of 10mls available 4-hourly). 10mgs of intravenous morphine was then given to cover any visceral pain, sedation was discontinued and the patient was successfully extubated one hour later. Regular paracetamol and a 25µg fentanyl patch were also prescribed.

Results

Analgesia was excellent-the maximum recorded pain score with the catheters in situ was 2/10. A single adjuvant dose of iv morphine was required on day 3. Recovery progressed well and the RSC were removed on day 4.

Discussion

Critical illness often precludes epidural insertion. This case highlights several contraindications including

sedation, haemodynamic instability, infection and coagulopathy.

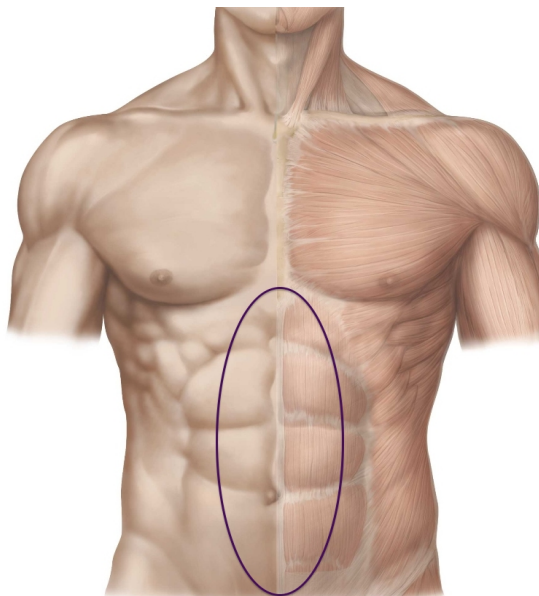
Opiate-based regimes can also be used after emergency surgery. However, systemic opiates have been shown to be less effective than epidurals and are associated with a higher incidence of complications such as ileus. Additionally, pharmacokinetics may vary considerably with organ dysfunction, particularly gut, renal and hepatic. Opiates, NSAIDs and even paracetamol have the potential to further destabilise physiology.

The choice of analgesic regimen after emergency laparotomy can be difficult, but this case highlights that RSC can be a safe and effective option.

References

1. Webster, K. **Ultrasound guided rectus sheath block - analgesia for abdominal surgery.** *Update in Anaesthesia* 2010; 26:12-17.
2. Cook TM, et al. **Major complications of central neuraxial block: report on the Third National Audit of The Royal College of Anaesthetists.** *Br J Anaesth* 2009; 102:179-90.
3. Low JHS. **Survey of epidural analgesia management in general intensive care units in England.** *Acta Anaesthesiol Scand* 2002; 46:799-805.

Written patient consent obtained.



The midline T7-T12 distribution of a rectus sheath block can provide good analgesia post-laparotomy.