East Lancashire Hospitals NHS
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DOUBLE THE FUN: REPEAT RECTUS SHEATH CATHETERS FOR A SECOND LAPAROTOMY

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Background

Rectus sheath catheters (RSC) are a regional technique in which the the 7th to 12th intercostal nerves are blocked as they traverse the potential space between the rectus muscles and the posterior rectus sheath. This provides midline analgesia to the rectus abdomini and overlying skin. We describe a case in which the technique is successfully repeated after a short time interval.

Methods

A 62-year old man with suspected sigmoid carcinoma was listed for hemicolectomy. Ultrasound guided RSC were inserted by the anaesthetist before surgery. Intra-operatively, a large bladder mass was found and the procedure was abandoned in favour of ileostomy and bladder biopsy. The histology report being inflammatory, hemicoletomy was rescheduled five weeks later. RSC were again inserted prior to surgery.
In both cases an initial bolus of 0.375% bupivicaine was administered, after which a pump delivered 0.2% ropivicaine. Morphine was given intra-operatively and multimodal analgesia was prescribed as per our Enhanced Recovery Program (fentanyl patch, regular paracetamol and gabapentin, oxycodone prn).

Results

After both operations the patient was mobilising early on day 1, having hooked his urinary catheter over the RSC pump bag (see picture below). Analgesia was excellent with minimal breakthrough opiate required (oxycodone 10mg/5mg after the first and second operations respectively). Recovery was uneventful and the RSC were removed on day 3 each time. By day 3 the patient had assumed responsibility for bolusing his own RSC under nursing supervision.

Mobilising 8am day 1. RSC tunneled to costal margins; laparotomy wound and stoma also seen.

Discussion

The patient himself requested RSC for the second operation. Despite initial concerns around disrupted tissue planes and distorted anatomy, this case demonstrates their efficacy even when repeated at short time intervals.

The suitability of RSC for Enhanced Recovery is also highlighted. Early mobility is facilitated and the side effects associated with epidurals and systemic opiates can be avoided. This could lead to a reduced rate of complications such as ileus, as well as to shorter recovery times. A randomised controlled trial is currently underway at our institution to formally evaluate this.

References

1. Gustafsson UO et al. **Guidelines for Perioperative Care in Elective Colonic Surgery: ERAS Society Recommendations.** *World J Surg* 2013; 37:259–284.
2. Webster, K. **Ultrasound guided rectus sheath block-analgesia for abdominal surgery.** *Update in Anaesthesia* 2010; 26:12-17.

Written patient consent obtained.

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