

Pain following hernia repair: which regional analgesic techniques?

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Aim of investigation. Hernia repair is increasingly becoming a day-case procedure and various regional techniques are used to optimise postoperative pain management. Consequently, we reviewed the analgesic efficacy of the different regional techniques in herniorrhaphy.

Methods. Systematic literature review (1966-January 2004) using the Cochrane collaboration protocol: randomised trials in adult herniorrhaphy of regional analgesia (local anaesthetic (LA) techniques, spinal anaesthesia (SA), epidural anaesthesia (EA) or other), reporting pain scores (VAS 1-100 mm). Significant outcomes $p < 0.05$.

Results. Total number of studies (n)=40.

Pre- and/or intra-operative LA vs. placebo (n=14): LA reduced pain (n=14) at 0-6 h (n=11), 8-24 h (n=8), day 2 (n=3), days 3-5 (n=1), and reduced analgesic use (n=9).

LA, pre-operative vs. at closure (n=3): similar analgesic efficacy.

LA vs. general anaesthesia (GA) (n=7): LA reduced pain (n=6), hospital stay (n=3), PONV (n=3) and sore throat (n=3).

LA +/- GA vs. SA (n=5): LA reduced pain (n=4), hospital stay (n=2), urinary retention (n=3) and conversion to GA (n=1).

SA vs. GA (n=4): SA reduced pain and/or analgesic use (n=3) and PONV (n=1).

SA vs. EA (n=1): SA reduced pain.

Postoperative LA infusion vs. placebo (n=3): LA reduced pain (n=3).

The following trials were non-significant or inconclusive: paravertebral vs. peripheral nerve blocks (n=1), postoperative bolus LA vs. placebo (n=2); NSAID by infiltration or topical gel vs. placebo or LA (n=5); infiltration with clonidine (n=1) or opioids (n=3) vs. placebo.

Conclusions. LA techniques are effective for postoperative analgesia, whether administered pre- or intra-operatively. Postoperative LA infusion reduces pain but data are limited. Local anaesthesia provides superior recovery benefits to general or neuraxial anaesthesia. There is little evidence to support use of paravertebral nerve blocks or local application of NSAIDs, clonidine or opioids.

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