

Can local techniques for anaesthesia improve patient outcome following hernia repair?

¹Henrik Kehlet and ²Narinder Rawal on behalf of the PROSPECT (PROcedure-SPECific postoperative pain management) Working Group

Background and Goal of Study: PROSPECT provides evidence-based recommendations for PROcedure-SPECific postoperative pain management, through collaboration of an international Working Group of surgeons and anaesthesiologists.¹ PROSPECT presents a systematic review on the postoperative analgesic effects of local anaesthesia in adult herniorrhaphy.

Materials and Methods: Systematic literature review (1966–January 2004) using the Cochrane protocol; randomised trials in herniorrhaphy of local techniques for anaesthesia (nerve block and wound infiltration with local anaesthetics (LA)) vs. other anaesthetic techniques, reporting pain scores (VAS 1–100 mm); where possible, data were grouped and weighted mean difference (WMD) and odds ratios (OR) calculated.

Results: Total number of studies (n)=8. All local techniques were ilioinguinal and iliohypogastric nerve blocks plus wound infiltration. For spinal studies: one used LA plus strong opioid, another LA alone and two did not specify; one spinal group included 18% epidurals.

Local vs. general anaesthesia (n=7). Local anaesthesia reduced: VAS scores in 6/7 studies at different times up to 8 days, WMD at 1 h -19.51 p=0.00001 (2 studies), WMD at 24 h -4.38 p=0.04 (3 studies); postoperative nausea and vomiting OR 0.19 p<0.00001 (5 studies); sore throat OR 0.14 p<0.0001 (3 studies), and hospital stay WMD -3.10 h p<0.00001 (2 studies).

Local vs. spinal anaesthesia (n=4). Local anaesthesia reduced maximum VAS scores in 3/4 studies at different times up to 30 days, reduced hospital stay WMD -3.10 h p<0.00001 (2 studies), and produced less urinary retention OR 0.02 p<0.00001 (3 studies).

Conclusion(s): In herniorrhaphy, local anaesthesia with nerve block and infiltration has superior postoperative analgesic and recovery benefits compared with general or spinal anaesthesia.

References:

1) Kehlet H, Bonnet F, Camu F *et al.* *European Journal of Anaesthesiology* 2003; **20** (Supplement 30); 6.