IV: Regional Anaesthesia II

14. Comparison of two different local anesthetic infusion methods (with or without opioids) for epidural analgesia after cesarean section delivery

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Aim: The aim of this study was to compare the efficacy and safety between ropivacaine 0.25% and ropivacaine 0.2% combined with a 0.025 mg/kg morphine regimen, administered as a continuous epidural infusion for analgesia after cesarean section delivery.

Materials and methods: We compared 55 parturient women undergoing a cesarean section delivery with a combined spinal-epidural technique. All women received intrathecally 2–2.3 mL ropivacaine 0.75% combined with 0.3 mL fentanyl through a G27 needle. An epidural catheter was inserted immediately after spinal anesthesia. Two hours after the onset of spinal anesthesia a ropivacaine 0.25% continuous epidural infusion (7 mL/h) was administered in group A whereas a ropivacaine 0.2% combined with 0.025 morphine epidural infusion (7 mL/h) was administered in group B. The degree of motor and sensory block (using a Bromage and VAS score 1–10) were evaluated immediately after, 2 h, 4 h, 8 h and 12 h after the onset of continuous epidural infusion administration. We also evaluated all patients' blood pressure (BP) and heart rate at the same time intervals.

Results: There were no statistically significant differences in hemodynamic parameters, sensory block or analgesic effect between the groups however there were differences in motor block (Bromage score in group A 0.7 ± 0.5 vs 0.2 ± 0.4 in group B, $p = 0.002$).

Conclusion: The use of a local anesthetic and morphine combination in group B provided efficient epidural analgesia accomplishing a lower motor blockade compared to group A.