Comparison of continuous epidural infusion of fentanyl and fentanyl-bupivacaine for post cholecystectomy pain control.

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摘要

Abstract

Epidural narcotics has been shown to produce profound and long-lasting analgesia. It has been suggested that lipid-soluble narcotics such as fentanyl, because of their short transit time in the CSF, are less likely to be associated with delayed respiratory depression and side effects. We tried to combine low concentrations of fentanyl with bupivacaine to minimize side effects and to see if synergistic effect existed. Forty ASA physical status I or II patients who present for cholecystectomy were included in the trial. Before surgery a thoracic epidural catheter was inserted and pain control began when patients became fully awake and complained of pain in the recovery room after surgery. Patients were randomized in a double-blind fashion to one of four groups. Patients in group I were given epidural infusions of fentanyl 0.001%; patients in group 2 received fentanyl 0.001% mixed with bupivacaine 0.1%; patients in group 3 received fentanyl 0.0005%; patients in group 4 received fentanyl 0.0005% mixed with bupivacaine 0.1%. A continuous epidural infusion of these drugs began at a rate of 10 mL/h after a 5-mL bolus of the solution. Pain relief was assessed with visual analogue pain scale. Respiratory rates, vital signs, and mental status were assessed hourly. Except the group 3, the degree of analgesia achieved was similarly satisfactory in all other groups. There was no respiratory depression developed in either group. Motor block was minimal or absent in all groups. The incidence of nausea and pruritus was significant less in group 3 and group 4. In conclusion, the continuous infusion of dilute bupivacaine with fentanyl provides synergistic analgesia with minimal side effects.