Analgesic and adverse effect of hydromorphone hydrochloride in different mode

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate the analgesic and adverse effect of hydromorphone hydrochloride in different mode.

Methods: Patients with lung cancer who received analgesia treatment after surgery and were admitted from April 2008 to June 2012 in our hospital, were selected, and random divided into three groups: control group, experimental group A, experimental group B, with 20 cases in each group. Patients in the control group received routine anesthesia; patients in experimental group A received conventional anesthesia plus intravenous injection of hydromorphone hydrochloride 2 mg q 20 min, and patients in experimental group B received conventional anesthesia plus hydromorphone hydrochloride pump 0.3 mg/h. Postoperative pain score was measured and adverse reactions were observed. Results: Ramsay scores were higher in experimental group A at 6 h, 9 h, 12 h, 24 h, 36 h point compared with control group (P<0.01), and Ramsay scores in the experimental group B at 9 h, 12 h, 24 h, 36 h point were also higher compared with control group (P<0.01). Patients in experimental group A and group B showed better sedative effect. Ramsay points in experimental group A was significantly higher than that of the experimental group B at 6 h (P<0.01). But the difference was not significant at the other time points (P>0.05). The incidence of urinary retention in the experimental group B was the highest (P<0.05). Cumulative incidence of adverse reactions in the experimental group A was 23.3% and 20% in the control group, and 43.3% in the experimental group B. Conclusions: hydromorphone hydrochloride analgesia can significantly reduce postoperative VAS score, and can last for at least 36 h. It can significantly improve postoperative Ramsay sedation score, slow down heart rate, stabilize hemodynamics indexes, reduce postoperative analgesic dosage of the drug, without increase in incidence of side effects. It is worthy of further exploration and applications.

[KEY WORDS] Hydromorphone hydrochloride; Analgesic mode; Analgesic effect; Adverse reactions