

cluded prednisone, long-acting theophylline and terbutaline, in addition to inhaled salbutamol and beclomethasone. She was Cushingoid in appearance and slightly obese: height 145 cm, weight 50.4 kg. Analysis of arterial blood gases revealed Pa_{O_2} to be 60 mmHg, Pa_{CO_2} 32 mmHg, and pH_a 7.46.

The patient had an uneventful general anesthetic for her Nissen fundoplication, consisting of enflurane, nitrous oxide, and oxygen. To minimize respiratory depression thoracic epidural blockade with local anesthetic was planned for postoperative analgesia. At the end of the procedure an epidural catheter was inserted into the T₇-T₈ interspace without difficulty. Induction of epidural blockade was successfully accomplished with 0.25% bupivacaine, with her T₅ to T₉ dermatomes anesthetized bilaterally except for a small area, which unfortunately included part of the incision. We decided to give her epidural hydromorphone and started with the small dose of 0.5 mg because of her presumed high risk of respiratory depression. She obtained excellent analgesia with this dose administered in 5 ml of normal saline. Four hours later, she complained of pain again and was mistakenly given 5 mg instead of the planned 0.5 mg. She experienced excellent pain relief, which lasted about 6.5 h. She was monitored throughout this period in the intensive care unit with arterial blood gas measurements every 30 min for the first 1.5 h, and then every hour. Respiratory rate did not change. Forty-five minutes after the dose, the Pa_{CO_2} increased to 44

mmHg. Pa_{CO_2} remained stable at that value until 4 h and 30 min after the dose, at which time it decreased to baseline value. The patient was discharged to the ward 25 h postoperatively and had an uneventful recovery until she required reoperation for dehiscence of her wound 5 days later.

Although we observed a slight increase in Pa_{CO_2} , frank respiratory depression did not occur. We are unaware of any case reports of late respiratory depression caused by epidural hydromorphone. This case supports the view that, at least under some circumstances, epidural hydromorphone may carry with it a low risk of respiratory depression.

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REFERENCES

1. Cousins MJ, Mather LE: Intrathecal and epidural administration of opioids. *ANESTHESIOLOGY* 61:276-310, 1984
2. Robinson RJS, Lenis S, Elliot M: Accidental epidural narcotic overdose. *Can Anaesth Soc J* 31:594-595, 1984

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Erratum

The article "Anesthesiologists Come of Age: Their Stake in General Education, Research, Residency Education, and Selection of Medical Students and Faculty," which appeared in the June 1985 issue of *Anesthesiology* (pp. 774-780), was the 1984 Rovenstine Lecture.