

## Correspondence

### *Continuous infusion interpleural analgesia for multiple fractured ribs*

To the Editor:

Interpleural analgesia has been used to manage patients with fractured ribs by an intermittent bolus technique.<sup>1</sup> A case is described where a continuous infusion technique was used to obtain long-lasting analgesia.

A 54-year-old 80 kg man sustained left 2nd–5th and 12th posterior rib fractures from a motor vehicle accident. Over the initial four days his chest x-ray revealed a small left basal infiltrate. He was afebrile and had a normal white blood count. Atelectasis with possible hypostatic pneumonia secondary to an inability to expectorate was diagnosed. During this time in hospital the patient was unable to achieve adequate analgesia with a regimen of meperidine 75–100 mg IM and acetaminophen 325 mg with 30 mg codeine PO.

An interpleural catheter was inserted at the mid axillary line above the sixth rib. Initially the patient, lying supine, received 20 ml 0.5 per cent bupivacaine with 1:200,000 epinephrine which produced complete relief of his chest pain at rest. The initial analgesia lasted only three hours. An infusion of 0.5 per cent bupivacaine with 1:200,000 epinephrine was started at 5 ml · hr<sup>-1</sup> after a second bolus of 20 ml. The first day on the infusion the patient required only one dose of parenteral meperidine. During the second day the infusion rate was increased to 7 ml · hr<sup>-1</sup> and with further doses of acetaminophen/codeine complete analgesia was maintained. Over this period the patient became more ambulatory and was able to expectorate. The catheter was then removed at the patient's request. He was maintained on oral analgesics until discharge two days later.

The use of a continuous infusion technique is a practical solution to the short duration of action of bupivacaine which is sometimes seen. It maintains excellent analgesia and improves pulmonary function.<sup>2</sup> Compared with intercostal nerve blocks it is less invasive and offers superior analgesia.<sup>2</sup> Experience with the infusion technique is limited. It has been found to be successful for post-cholecystectomy pain but controversial results have been obtained after thoracotomy.<sup>3–5</sup> Controlled trials are

needed to elucidate the optimum drug concentration and infusion rates for this technique.

Elliot T. Hudes MD FRCPC  
Dept. of Anaesthesia  
Peel Memorial Hospital  
20 Lynch St.  
Brampton, Ont. L6W 2Z8

#### REFERENCES

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- 2 Blake DW, Donnan G, Novella J. Interpleural administration of bupivacaine after cholecystectomy: a comparison with intercostal nerve block. *Anaesth Intensive Care* 1989; 17: 269–74.
- 3 Rosenberg PH, Scheinin BMA, Lepäntalo MJA, Lindfors O. Continuous intrapleural infusion of bupivacaine for analgesia after thoracotomy. *Anesthesiology* 1987; 67: 811–3.
- 4 Baker PA, Schroeder D. Interpleural bupivacaine for post-operative pain during lactation. *Anesth Analg* 1989; 69: 400–2.
- 5 McIlvaine WB, Knox RF, Fennessey PV, Goldstein M. Continuous infusion of bupivacaine via intrapleural catheter for analgesia after thoracotomy in children. *Anesthesiology* 1988; 69: 261–4.

### *Failed intubation*

#### REPLY (1)

*We are in agreement with the thoughtful letter by Burgess (Can J Anaesth 1990; 37: 388, April) on the issues of management recommendations and professional standards. Our article resulted from a decision by the Standards of Practice Committee of the C.A.S. to address the problem of failed intubation in the parturient. The creation of formal guidelines for management was considered but rejected as any such guidelines were likely to be controversial and therefore impractical. An educational role for the C.A.S. was thought to be more appropriate and to this end, the Executive of the Obstetric Section of the C.A.S. (JMD & SKW) was asked to prepare a Review Article for publication*