underwater drain (preferably two tubes, one for the air and the other for the empyema fluid at the base) was inserted. A major spill over onto the healthy side did occur, as shown by the postoperative x-ray of the second patient.

Whatever the merits of the endobronchial intubation, it seems to me that, in the two patients mentioned, the management as described was inappropriate and, if repeated, the next patient may not be so lucky.

It should be emphasized that presence of pneumothorax and pneumoempyema makes it absolutely mandatory to put in underwater drains under topical analgesia, before any intubation, endobronchial or otherwise, is undertaken.

Y. G. BHOJRAJ
Bombay

REFERENCE

SIR,—Thank you for referring the letter of Dr Bhojraj concerning our report "Selective Contralateral Bronchial Intubation in Children with Pneumothorax or Bronchopleural Fistula". I agree with Dr Bhojraj that the merits of bronchial intubation should not deviate us from the proper anaesthetic management of such patients. As a matter of fact, the aim of our publication was to describe the technique of selective contralateral bronchial intubation in children having empyema or pneumothorax, and to report that massive transbronchial spread of empyema can occur despite selective bronchial intubation.

Also, I agree with Dr Bhojraj that preoperative underwater seal drainage under local anaesthesia is advisable in patients with pneumothorax or empyema. This is our practice in adults. However, general anaesthesia may be advised in children. In the paediatric age group, we recommend in our report the induction of general anaesthesia with a head-up tilt, while the child was breathing spontaneously an inhalation anaesthetic, or by using a "crash" induction of anaesthesia as described in our report. In all cases of empyema or tension pneumothorax, we must presume the presence of a bronchopleural fistula and controlled ventilation should be commenced only after ensuring contralateral bronchial intubation.

A. BARAKA
Beirut

EXTRADURAL DROPERIDOL POTENTIATES EXTRADURAL OPIOIDS

SIR,—The extradural administration of opioids has been effective in the treatment of pain. Nevertheless, especially in the case of terminal cancer, supplementary medication may be necessary.

It has been demonstrated that parenterally administered opioids may be potentiated by means of dopamine receptor blocking agents, such as neuroleptics (Tulunay, Ischiro and Takemori, 1976). Furthermore, a descending and an independent dopaminergic system has been discovered (Hökfelt, Phillipson and Goldstein, 1979; Karoum et al., 1980). In 1980, Kim and Stoelting showed that the simultaneous instillation of morphine and droperidol in rats prolonged the mean duration of action of morphine alone by approximately 40%.

Neuroleptic agents may increase the analgesic effect of opioids by impairing the dopaminergic impulses at a segmental level of the spinal cord. Inspired by this study, we attempted instillation of droperidol in order to potentiate extradural opiates in two patients suffering from intractable chronic pain from malignant disease. We chose droperidol on account of the previous results, the suitable concentration, identical pH values when compared with morphine, and the lack of preservatives in the solution.

In one patient, a 60-year-old female with cancer of the urinary bladder, the mean daily dose of extradural opioid had been increased from morphine 18 mg to a total of morphine 30 mg, without producing adequate analgesia. Supplementary medication with extradural droperidol 2.5 mg before the instillation of the morphine twice daily produced satisfactory analgesia. The patient experienced a minor degree of sedation, which she easily accepted. The dose of morphine remained constant for more than 2 months. The other patient, a 70-year-old female with terminal breast cancer, was treated with extradural buprenorphine 0.6 mg three times daily. Adequate analgesia was not achieved until droperidol 2.5 mg was added twice a day previous to instillation of the opioid. No unwanted side effects were observed and the dose of buprenorphine remained constant until the patient died 1 month later.

We find our results promising. Droperidol has been combined with pure agonistic as well as partial antagonistic opioids (buprenorphine), and in both cases with success.

Extradural neuroleptics may be beneficial when patients suffer from pain which is not eliminated by means of extradural opioids alone.

V. BACH
F. CARL
O. RAVLO
M. CRAWFORD
L. KRUSE
Esbjerg, Denmark

REFERENCES


AN UNUSUAL CASE OF SINUS ARREST

SIR,—We read with much interest the brief communication "An unusual case of sinus arrest", reported by Kirkwood and Duckworth (1983). The authors pointed out that vecuronium could, possibly, have caused sinus arrest. We would like to stress some details, for their consideration:

(1) Lack of atropine in premedication.

(2) Repeated administration of opiates, during induction of general anaesthesia and later for maintenance of analgesia. Opiates do cause bradycardia.
CORRESPONDENCE

(3) Sinus arrest occurred 17 min after first administration of vecuronium.
(4) After administration of atropine, two further doses of vecuronium did not produce disturbance of rhythm.

After having considered the above points, do the authors really think that vecuronium had any responsibility in the sinus arrest they reported?

E. MAESTRONE
G. PRADELLA
Sondrio

REFERENCE

Sir,—Thank you for giving me the opportunity to reply to the points raised by Drs Maestrone and Pradella.

It was not intended to suggest vecuronium was responsible for the sinus arrest. The case was reported to emphasize that anaesthesia using agents known to cause bradycardia, such as opiates and halothane, in conjunction with so-called “clean” myoneural blockers such as vecuronium and atracurium, may result in bradycardia which may be severe, or even, as in this patient, sinus arrest.

In common with many anaesthetists in the U.K., it has not been my practice to prescribe atropine routinely as part of premedication for some time. Atropine is, however, kept at hand so that small but suitable doses may be given i.v. to obtain the correct degree of block of the cardiac vagus, indicated by continuous ECG monitoring. This assumes particular importance when a neuromuscular blocking drug devoid of cardiac side-effects, such as vecuronium, is used, and bradycardia caused by other drugs is uninhibited and may be severe.

The report of this case was intended to draw attention to these points.

I. KIRKWOOD
Glasgow

DIFFICULT INTUBATION

Sir,—A gum-elastic bougie can be a valuable aid to the intubation of the trachea when the larynx is difficult to see, and when anatomical factors prevent the tube from being directed into the trachea. However, after successful passage of a bougie it may be difficult or impossible to slide the tube around it (Boys, 1983). When the tube is simply pushed down around the bougie lying in the trachea (fig. 1A) the tip of the tube is liable to lodge on the right vocal cord. Encountering resistance, one automatically tends to rotate it clockwise, as if inserting a bolt or screw, thus causing the tip of the tube to lie posterior to the bougie, protruding like a ploughshare (fig. 1B) lodging firmly behind the arytenoids. I suggest that, before the tube nears the larynx, it should be rotated a quarter-turn anti-clockwise. This manoeuvre will cause the tip of the tube to lie anterior to the bougie, and to be in close contact with the bougie, so that it does not catch on anything (fig. 1C). The tube must previously have been lubricated inside and outside.

I have tested this technique in more than 100 patients, some of whom would otherwise have been difficult to manage, and have found it has always been successful and atraumatic.

The quarter-turn anti-clockwise twist of the tube on the bougie is applicable also to nasal intubation. Perhaps it would be helpful in “guided blind intubation” when the tube tends to slip into the oesophagus (Akinyemi and John, 1974).

P. S. COSSHAM
Leicester

REFERENCES