In a study of two PCA devices, a similar number of demands were made by patients using the device that also administered an infusion as those using pure PCA [3]. Second, in a prospective study comparing PCA and PAA [4] there was no difference between the techniques with respect to either pain relief or demand rate, although there was a higher incidence of major adverse effects with PAA. PCA has been compared with PAA using two infusion rates for the background infusion [5]. Again, the infusion did not either improve pain control or reduce demand rate.

From these studies we conclude that, when morphine is used for PCA, a concurrent infusion adds to the total dose of drug without a commensurate improvement in analgesia. The case for automatically prescribing a background infusion, however attractive on theoretical grounds, is not made.

H. Owen
L. E. Mather
Flinders, S. Australia

REFERENCES


Sir,—The article by Mitchell and Smith stops short of unequivocal advocacy of patient-controlled analgesia in conjunction with a continuous "background" infusion, but the authors refer to work from their department which "suggests that the 'low dose infusion + bolus' technique with morphine yields marginally better results than bolus alone." This finding is at variance with the work quoted by Owen and Mather, and they may well disagree with it, but I do not think I seriously misrepresented what Mitchell and Smith actually wrote.

E. N. ARMITAGE
Sussex

PROPHYLACTIC EphEDRINE INFUSION IN OBSTETRIC ANAESTHESIA

Sir,—We read with interest the correspondence on the case report of Drs Stone, Thorburn and Lamb [1]. In their reply [2] the authors say that "the value of the use of prophylactic ephedrine is not clear". The case in question is that of a patient who was given a spinal block after failure of an extradural and, when the block ascended too high, finally received a general anaesthetic and IPPV. The value of prophylactic ephedrine in the management of hypotension associated with high sympathetic block is perfectly clear, particularly in obstetric anaesthesia [3]. The administration of a fluid load takes time and, in a patient who already has received a preload, the most rapid and effective treatment is to infuse ephedrine in a clear solution containing ephedrine 30 mg in 500 ml.

In our unit, after a crystalloid preload of 1 litre, this is started from the moment the spinal anaesthetic has been injected, and the rate of infusion is adjusted according to arterial pressure. If the infusion is "piggily-backed" into the i.v. line via a 21-gauge needle, and run initially at the fastest rate, this usually produces the correct rate of infusion.

As the use of prophylactic ephedrine is indicated in obstetrics, perhaps its use should be extended also to other situations during spinal anaesthesia in which a large fluid preload may cause problems. We hope that this clarifies the role of ephedrine, and that the simple technique described may help others who wish to use spinal anaesthesia in obstetrics but are concerned about hypotension.

R. S. Frazer
G. M. Edwards
Liverpool

REFERENCES


Sir,—Thank you for the opportunity to reply to Drs Frazer and Edwards, who question our statement that, in relation to obstetric anaesthesia, the value of prophylactic ephedrine is not clear.

We would not deny that, in certain clinical situations, ephedrine has been shown to reduce the incidence of hypotension. However, hypotension continues to be reported as a problem associated with the use of extradural anaesthesia for Caesarean section [1]. We would also argue that the value of a prophylactic measure lies both in the absence of unwanted effects and in the reliability of the measures taken. Rolbin and colleagues [2] have demonstrated that unacceptable hypertension may result from the use of prophylactic ephedrine and the reliability is uncertain. Therefore we cannot agree with Drs Frazer and Edwards that the value of prophylactic ephedrine in the management is perfectly clear.

P. A. Stone
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REFERENCES
