

## REPLY

To my knowledge the single segment combined subarachnoid epidural (CSE) block has not been reported for Cesarean section previously. The modification recommended by Nickalls and Dennison whereby the spinal needle is clamped to maintain its position in the dura appears interesting. CSE block avoids one of the major disadvantages of subarachnoid block in the pregnant patient, i.e., the difficulty in controlling the upper level of analgesia. If Dr. Dennison can consistently achieve a T<sub>2</sub>-T<sub>4</sub> block with 1.5-1.6 ml isobaric subarachnoid bupivacaine and keep the incidence of hypotension down to an impressive 10-15 per cent it is arguable if an epidural catheter is necessary at all.

In contrast to Dr. Dennison's technique, our aim with the CSE technique is to achieve a T<sub>8</sub> subarachnoid block followed by extension of the block to T<sub>4</sub> by injecting bupivacaine in the epidural catheter. The less extensive subarachnoid block combined with the slower onset of epidural block allows more time for compensatory mechanisms to be effective and thereby minimizes the risk of precipitous hypotension with the two stage CSE technique. We do not use prophylactic vasopressors since these drugs may have undesirable fetal and maternal effects.<sup>1</sup>

Thus the differences in the spread of subarachnoid blocks in spite of similar doses is due to differences in the techniques. Dr. Dennison's patients received isobaric bupivacaine while our patients were given hyperbaric bupivacaine in the sitting position. For the surgical procedure Dr. Dennison apparently uses the conventional subarachnoid technique while we use the CSE technique. For postoperative analgesia with epidural opiates our experience is similar to that of Dr. Dennison.

N. Rawal  
Department of Anesthesiology  
and Intensive Care  
Örebro Medical Center Hospital  
Örebro, Sweden

## REFERENCE

- 1 Datta S, Alper MH. Anesthesia for cesarean section. *Anesthesiology* 1980; 53: 142-60.

## Anaesthetic management of the malignant hyperthermia susceptible parturient

To the Editor:

We wish to comment on the paper "The anaesthetic management of the malignant hyperthermia susceptible parturient" by Douglas and McMorland,<sup>1</sup> as we feel that it is misleading. It consists of a description of a perfectly reasonable plan for management which has been used successfully in 14 parturients. However the authors state that these are MHS (Malignant Hyperthermia Susceptible) parturients - which leads the reader to the conclusion that the method has been put to the acid test in 14 women who were actually at risk of developing MH.

To make the diagnosis MHS, a muscle biopsy and *in vitro* test is required, but this had not been done in 13 of

the 14 patients reviewed. These 13 patients can be expected, if they are members of unequivocal MHS families, to have a 50 per cent chance of being MHS (siblings, parents, children of probands), a 25 per cent chance (uncles, aunts, nephews, nieces) or a 12.5 per cent chance (cousins). The finding of a raised CPK in six of the 13 raises the odds slightly, but by no means confirms the diagnosis. In our own material, 16 per cent of normal members or MHS families had raised CPKs, and 45 per cent of MHS members had normal CPKs. The authors admit that one patient (#9) was unlikely to be MHS.

Thus, a large and unknown proportion of the patients under review were probably not MHS, and therefore the method under discussion has not been as thoroughly tested as the reader may be led to believe. We think the paper should have made this clear.

Dr. Eva Ranklev  
Dr. Roger Fletcher  
University of Lund  
Department of Anesthesiology  
University Hospital  
S-221 85 Lund, Sweden

## REFERENCES

- 1 Douglas MJ, McMorland GH. The anaesthetic management of the malignant hyperthermia susceptible parturient. *Can Anaesth Soc J* 1986; 33: 371-78.

## REPLY

Thank you for the opportunity of replying to the letter by Drs. Ranklev and Fletcher. We are pleased that they feel that we presented a "perfectly reasonable plan for management" of pregnant MHS patients, which was the intent of the paper. In addition, we pointed out the difficulties in always obtaining an absolute diagnosis of malignant hyperthermia susceptibility at the time of admission of these patients. The procedure of giving birth is not usually elective and can not be deferred until a muscle biopsy-proven diagnosis is made. Under the circumstances, it is better to manage these patients as if they were susceptible rather than administer a "triggering" agent and have to deal with the possible result.

We certainly would not argue with the incidence of susceptibility in relatives of MH patients, but while their letter demonstrates their own knowledge in that area, it does not relate to the thrust of our paper.

M. Joanne Douglas MD FRCP  
Graham H. McMorland, MB CHB FRCP  
Department of Anaesthesia  
University of British Columbia and  
Grace Hospital,  
4490 Oak Street  
Vancouver, British Columbia  
V6H 3V5