Combined spinal epidural anaesthesia is better than spinal or epidural alone

Editor—I read with interest the correspondence of Ranasinghe and colleagues regarding the use of combined spinal epidural (CSE) for Caesarean delivery. I am an advocate of this technique and use it extensively in labour and occasionally for Caesarean deliveries.

My institution is also a large training hospital. Our failure rate for spinal anaesthesia for Caesarean delivery is close to zero, and nowhere near the 2–5% cited by these authors. I even doubt if the failure rate of epidurals at our institution approaches this figure although it is probably higher than the failure rate for spinal anaesthesia.

I wish to comment on the data in Table 1 presented by these authors. They claim a success rate of 522/525 for CSE, based on a need for general anaesthesia in only three patients. However, in 13 patients they could not obtain CSF, and did not inject anaesthetic in one additional patient because of paraesthesia. In 14 patients they could not thread an epidural catheter after injecting drug intrathecally.

None of these 28 patients truly received a CSE and thus must be considered CSE failures. Before touting the advantages of this technique, they should have calculated the true success rate, i.e. 525–(3+14+14)/525=94.1%, not 99.4%.

In fact, since 388 patients never required epidural supplementation, the placement of an epidural catheter was completely unnecessary, retrospectively, in 73.9% of these patients.

In conclusion, for most Caesarean deliveries, using successful block as an end-point, CSE as described in this correspondence offers no advantage over single-shot spinal anaesthesia as we practise it.

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Editor—Thank you for the opportunity to reply to Dr Lee’s interesting correspondence. We agree with Dr Lee’s comment that the failure rate for spinal anaesthesia is very low, especially with hyperbaric bupivacaine 12 mg as described in obstetric anaesthesia texts. With epidurals, we have seen much higher failure rates. In fact, some authors have published failure rates of 18.2%.

We use CSE for nearly all our urgent and elective Caesarean deliveries. Knowing that the epidural catheter is there as a ‘back-up’ allows us to use a smaller dose of bupivacaine for the spinal than we would use for the spinal anaesthesia alone. With smaller doses of bupivacaine, we rarely see a high block or severe hypotension even with hypertensive patients, or parturients with macrosomia or multiple gestations. We feel this contributes to the safety of the technique, reducing the risk of complications secondary to a high block from too large a dose for that individual patient, or the risks of general anaesthesia after too small a dose of local anaesthetic.

The purpose of our letter was mainly to prove the success of CSE as a regional technique as we practise it, using lower doses of intrathecal local anaesthetic. The epidural catheter can be used to reinforce the spinal if needed, or to extend the length of the anesthetic if required. Thus, only three patients out of 525 required general anaesthesia because of a failed regional technique: a success rate of 99.4%.

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1 Ranasinghe JS, Steadman J, Toyama T, Lai M. Combined spinal epidural anaesthesia is better than spinal or epidural alone for Caesarean delivery. Br J Anaesth 2003; 91: 299–300

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