Meningitis after combined spinal—extradural anaesthesia in obstetrics

Sir,—I read with interest and with some alarm of the two case reports of meningitis after combined spinal—extradural anaesthesia by Drs Harding, Collis and Morgan [1]. While there is always the possibility of meningitis after extradural injection, the risk is low, with a strict aseptic technique and this is borne out by the few anecdotal reports in the literature, despite the huge number of extradurals used, not only in obstetrics but also for postoperative pain control.

What is worrying about the report by Drs Harding, Collis and Morgan is the relatively new introduction of the technique of combined spinal—extradural analgesia for ambulatory patients in their institution, and two cases of meningitis in approximately 1500 cases (number deduced from previous reports by the same group) is a substantially increased risk. There is of course the chance that these cases were coincidental. There is evidence to show the value of extradural analgesics, as pointed out by the work of the same group in terms of patient satisfaction, the trend towards shorter labour, more spontaneous vaginal deliveries and fewer rotational deliveries [2]. In my opinion, it would be detrimental to this increasingly popular technique if it carries a risk of meningitis.

In the last 6 months we have introduced ambulatory extradurals in Poole Maternity Unit using the method adopted by the Queen Charlotte’s group, apart from the use of the combined spinal—extradural technique. We do not believe that the benefit of almost instant analgesia is worth the risk of infection, even though it may be necessary to wait 15–20 min for the onset of extradural analgesia. Instead we educate the mothers and midwives to request the extradural as early as possible when the mothers are in established labour. We also discourage the use of pethidine and encourage the use of Entorox and Isomox during the establishment of extradural pain relief. Our patient satisfaction rates are similar to those of the Queen Charlotte’s group and although our numbers to date are much smaller, we do not anticipate any increased risk of meningitis. It is interesting to note that the majority of the case reports of meningitis occurred after spinal anaesthesia or inadvertent dural puncture after extradural insertion.

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Sir,—I read with interest and with some alarm of the two case reports of meningitis after combined spinal—extradural anaesthesia by Drs Harding, Collis and Morgan [1]. While they report that their patients made a full recovery, the complication of meningitis has frightening implications for morbidity and thus liability. They caution the importance of meticulous technique. However, the patient suffered a complication without an apparent fault in technique which calls into question the inherent risk benefit ratio of the technique itself.

In the case of presumed chemical meningitis, trace contamination of the exterior surface of a needle passing through a prepared skin site can hardly be avoided, but all measures to prevent contamination of the lumen are to be commended. Patient No. 2 however was subjected to five invasions of her anatomical defences, and I would ask the following questions about her management. (1) Why was it deemed necessary to place a subarachnoid block so early in labour for rupture of membranes? An extradural, which was planned for pain control, would have been adequate. (2) Why was there no effort made or described to normalize the unilateral block before placing a second extradural? (3) Why was no effort made or described to render the second extradural satisfactory for Caesarean section before placing a second extradural? (4) Why was the patient offered an extradural blood patch as a first-line treatment for post-dural puncture headache? Many less invasive measures are described and are worth trying. Many anaesthetists have concerns that extradural blood patch, despite a good success rate, is not a totally benign procedure, both in the short term as a potentially infective locus, and in the long term in respect of back pain and function.

The combined spinal—extradural technique is in its infancy, and I am reminded how rapidly in the early 1980s the FDA in the USA withdrew micro-spinal catheters when there was a suspicion of patient damage. Matters of informed consent are also becoming of greater consequence in the UK. How many patients would refuse the undoubtedly beneficial of regional anaesthesia if they were informed that they risked meningitis?

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