CORRESPONDENCE

ANAESTHESIA FOR SIMULTANEOUS CAESAREAN SECTION AND CLIPPING OF INTRACEREBRAL ANEURYSM

Sir,—We wish to defend the use of extradural anaesthesia for Caesarean section in patients with intracerebral aneurysm. Recently we have managed a case similar to that described by Whitburn, Laishley and Jewkes [1] and used successfully an extradural technique for Caesarean section before proceeding to a craniotomy under anaesthesia with propofol and nitrous oxide.

The reason for avoiding an extradural technique is that an increase in extradural volume may cause an increase in intracranial pressure (ICP) and therefore compromise cerebral blood flow (CBF). However, this has been reported in only two patients [2], both of whom had sustained severe diffuse head injury. Furthermore, the increase in ICP was transient, and was appreciable in only one of these patients who was both comatose and had baseline intracranial hypertension. There was no evidence of increased ICP or decreased cerebral compliance either in our patient or in the patient reported by Whitburn, Laishley and Jewkes [1]. An editorial view [3] has concluded that a minor increase in ICP may be expected in normal individuals during extradural anaesthesia, which could be reduced by slower rates of injection.

Extradural bupivacaine provides excellent analgesia during surgery and in the postoperative period, permitting accurate assessment of conscious level. Furthermore, an extradural technique obviates the need to use general anaesthesia, tracheal intubation and β-blocker and vasodilator therapy, all of which have potentially deleterious effects upon CBF and ICP. Indeed, suxamethonium has been shown clearly in dogs and in humans to cause a significant increase in ICP [4, 5]. We suggest that, in common with extradural anaesthesia, the use of suxamethonium is controversial also in the presence of impaired cerebral perfusion, but each of these techniques has benefits which outweigh their risks.

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REFERENCES


29-GAUGE SPINAL NEEDLES

Sir,—Having read with interest the reports by Dahl and his colleagues [1] on the technical considerations and incidence of postdural puncture headache (PDPH) using 29-gauge spinal needles in young patients, and by Haden, Scott and Pinnock [2] on the use of needles of the same gauge for spinal anaesthesia for Caesarean section, we should like to present some preliminary results of our own experience using 29-gauge needles for combined spinal–extradural anaesthesia for Caesarean section, with some thoughts on the future for such needles.

Comparison of the incidence of PDPH between different series is made difficult by failure to control factors which may affect the incidence, for example age, sex, gauge of needle and alignment of needle bevel. In addition, headache may be so transient that it may be difficult to establish if it is postural in nature. Consequently, we have found it more useful to establish the incidence of “significant” PDPH. This we define as any headache occurring after dural puncture which is not only postural but also is either (a) continuous for more than 24 h at any level of intensity or (b) so severe at any time that the patient is unable to maintain an upright posture; in other words, a headache which has any significant effect on the patient’s postoperative well-being.

Using this definition, there has been no significant PDPH in our series, which so far consists of 163 patients. Several details of technique may have helped reduce this incidence. First, in almost all patients the spinal needle was inserted with the bevel parallel to the long axis of the vertebral canal (which has been shown to reduce the incidence of PDPH [3]). Second, the relatively oblique paramedian approach to the extradural (and consequently the subarachnoid) space was used in most patients, rather than the more perpendicular midline technique. It has been suggested that this may result in less leakage of cerebrospinal fluid through the dura mater after withdrawal of the needle [4]. The third factor is that almost all patients in this series received one or two injections of fentanyl made up to a volume of 10 ml with saline for postoperative pain relief. While it is difficult to see how the transient increase in extradural pressure produced by this technique could cause a lasting effect on dural leakage of CSF, extradural injection of larger boluses of saline has been recommended in the past as prophylaxis against PDPH [5].

Despite these possible criticisms, it appears from our results and those of others using 29-gauge spinal needles [1, 2, 6, 7] that significant PDPH with this gauge needle is almost non-existent. This should make their use appropriate particularly in groups most susceptible to PDPH—obstetric patients and