Phantom Limb Pain and Epidural Anesthesia for Cesarean Section


Although spinal anesthesia can exacerbate phantom limb pain in amputees, the effect of epidural analgesia in these cases has not been described. We describe the management of an amputee who underwent epidural anesthesia for elective cesarean section.

REPORT OF A CASE

A 28-yr-old primigravida had undergone a right hindquarter amputation for chondrosarcoma 10 yr previously. She could remember only one severe attack of phantom pain, which had occurred approximately 10 days after that operation. Apart from that, she had continued to have occasional episodes of shooting pain in the phantom limb, nearly always referred to the region of the toes. These episodes were neither severe nor long-lasting enough to be incapacitating.

Because of instability of the pelvic wall, an elective cesarean section was scheduled, and the patient expressed a keen desire to be awake for this. Bearing in mind the reports of severe phantom pain brought on in amputees by spinal analgesia, the patient was advised that the epidural might precipitate an exacerbation of her phantom pain, necessitating general anesthesia.

Surgery was performed under epidural analgesia with a total dose of 26 ml of 0.5% bupivacaine given in incremental doses over a 1-h period. This gave excellent anesthesia for the operation with no trace of phantom limb pain. However, as the epidural block began to wear off and sensation returned to the intact left lower limb, phantom pain began to appear on the right. This pain was different from her usual shooting pain, being reported as a dull ache referred to the calf and more severe than the wound pain from the cesarean section.

Both the phantom and wound pain were completely relieved by 75 μg fentanyl in 7.5 ml normal saline given through the epidural catheter. This was effective for more than 4 h, after which a second dose of fentanyl was given. This second dose was less effective than the first but provided adequate pain relief for 5 h. Therefore, the patient's pain was effectively treated by two injections of im papaveretum and then oral analgesics, the usual routine for treatment of postepidural cesarean section in this hospital. The phantom pain was never severe after the early postoperative hours and steadily disappeared over the next 24–48 h.

DISCUSSION

Not all patients have phantom pain following amputation; the reported incidence varies between 0.4–50%.

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Key words: Anesthetic techniques; peridural, lumbar. Complications: phantom limb pain.
Increased Perioperative Risk Following Repair of Congenital Heart Disease in Down’s Syndrome

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Patients with Down’s syndrome (DS) have an incidence of congenital heart disease (CHD) of approximately 40%. Early surgical intervention can prevent associated congestive heart failure, pulmonary hypertension, and pulmonary vascular obstruction. Children with DS may have a propensity for early development of pulmonary vascular obstruction, although this conclusion has been disputed. Perioperative mortality is a function of both age at the time of surgery and complexity of the cardiac defect. In one series of DS patients with complete atrioventricular canal (AVC), mortality was 50% for patients less than 3 months of age, and 17% for patients at 12 months. Another series reported a mortality rate of 52% for all patients with DS with AVC, compared with 20%

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