Dysphoria after extradural diamorphine

Sir,—We report the occurrence of an acute dysphoric reaction after administration of diamorphine into the extradural space. A 51-yr-old student who became pregnant with the aid of in vitro fertilization (IVF), was admitted for elective Caesarean section at 36 weeks’ gestation. The indications for the section were unexplained fetal lie and the patient’s age. Her past history revealed that she had suffered worrying nightmares and been sick after a previous general anaesthetic. She was otherwise healthy, did not smoke, and drank alcohol only occasionally. She had taken aspirin until 10 days previously to reduce the risk of pre-eclampsia.

The night before operation, she was given ranitidine 150 mg orally which was repeated the following morning with the addition of metoclopramide. A lumbar extradural block was established with 0.5% bupivacaine 15 ml and fentanyl 100 μg as a slow bolus after it was demonstrated with Hartmann’s solution 100 ml. An extradural catheter was then sited. This produced good bilateral sensory and motor block for Caesarean section to be performed. There was one episode of hypotension (95 mm Hg systolic pressure) which was treated successfully with ephedrine 6 mg i.v. As standard practice at our hospital, the extradural catheter was used for postoperative analgesia.

Two and a half hours after delivery, when the patient began to feel uncomfortable, diamorphine 2.5 mg in normal saline 10 ml was administered via the extradural catheter with good effect. However, 85 min later, the patient’s skin became extremely cold and clammy, and she was very tearful. She complained of vivid, unpleasant dreams and was very agitated. On examination, cardiovascular and respiratory variables were normal. A BM six indicated blood glucose concentration greater than 4 mmol litre⁻¹. Following naloxone 400 μg i.v., she became calm and recovered within 5 min. Just over 1 h later, she suffered a similar episode and again responded to naloxone i.v.

After a further 2 h, she was similarly unwell and in addition to a bolus dose of naloxone 200 μg i.v., she was also given naloxone 400 μg i.m. A naloxone infusion of 1.8 mg in normal saline 500 ml was commenced at a rate of 300 μg h⁻¹. The infusion was discontinued after 6 h when the patient had remained well.

Her recovery continued uneventfully until 24 h later when she complained of itching. This was treated successfully with an infusion of naloxone as before. The patient required Co-dydramol tablets and dicyclomac suppositories for pain relief over the next few days and she did suffer further dysphoric episodes.

Dysphoria after extradural diamorphine has been described previously with an incidence of less than 1% [1] and others have found a 1% incidence of dysphoria and sedation with extradural morphine [2]. However, there are no details of whether or not an acute state treatable with naloxone occurred. Other accepted side effects of extradural opioids include respiratory depression, pruritus, urinary retention, nausea and vomiting and hypotension [3–6].

The cold and clammy state with vivid dreams and anxiety could have been caused by several mechanisms, including hyperthermia, hypoglycaemia, partial seizures and alcohol or drug withdrawal. The patient was previously healthy and there was no history of high alcohol intake. Her blood glucose concentration was normal and the fact that the state was reversed by naloxone makes it likely that the cause was opioid administration. It is interesting that a previous general anaesthetic had produced nightmares in the postoperative period but unfortunately further details of this are not available. The patient had no other history of opioid use.

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The reinforced laryngeal mask airway for adenotonsillectomy

Sir,—We read with interest the study by Drs Williams and Bailey [1] comparing the reinforced laryngeal mask airway (LMA) with tracheal intubation for adenotonsillectomy. We were impressed with the possibility of avoiding the use of neuromuscular blocking agents and tracheal intubation, with its attendant risk of laryngospasm on extubation; this has been assessed as about 20% in children after adenotonsillectomy [2, 3]. The protection afforded from blood contamination of the airway during the initial phase of recovery was attractive. We also foresaw a more rapid turnaround between patients as a result of these factors.

The newly available reinforced LMA were purchased and we have audited their use by a single experienced consultant over approximately 7 months in 1993. After a cautious start, the new masks were used for all patients undergoing tonsillectomy, adenotonsillectomy or the combined procedure (one patient was operated on by one surgeon who was unwilling to participate).

Anaesthesia was induced in all patients with propofol, preceded by alfentanil 15 μg kg⁻¹, and anaesthesia was maintained with spontaneous ventilation of nitrous oxide, oxygen and enflurane, supplemented by i.v. Omnopon 20 mg (noscapine-free formulation replacing papaveretum). A Humphrey ADE circuit in the A mode was used for all patients weighing more than 12 kg; smaller patients breathed through a Jackson Rees modification of the T-piece. Standard monitoring (non-invasive arterial pressure every 3 min, inspired oxygen and end-tidal carbon dioxide concentration, oxygen saturation and ECG) was used throughout. Brief details of each patient were recorded on the Lewisham Hospital anaesthetic audit form. These forms were retrieved and analysed manually.

One hundred and twelve forms were retrieved. There was a preponderance of younger children (45 were aged 3–6 yr; 37 7–12 yr, 30 13–39 yr); the distribution of males and females was similar. More than 75% of patients were completely satisfactory and all the advantages anticipated were realized in full. However, a substantial number (23 (20.5%)) exhibited a degree of respiratory obstruction at some time during operation. This was diagnosed on clinical grounds, principally a change in the ventilatory pattern with inwashing at the suprastomal notch with or without paradoxical movement of the upper chest. Manual assistance of ventilation was provided as required and also contributed to the diagnosis. In virtually every instance the cause of obstruction appeared to be compression of the airway tube between the lower teeth and the Doughty blade of the modified Boyle Davis gag. There was no obvious type of dental occlusion. Although in most patients obstruction became obvious as soon as the gag was made surgical access difficult. We also experimented with splinting obstruction by substitution of a larger tongue blade or releasing obstruction at some time during operation. This was diagnosed on clinical grounds, principally a change in the ventilatory pattern with inwashing at the suprastomal notch with or without paradoxical movement of the upper chest. Manual assistance of ventilation was provided as required and also contributed to the diagnosis. In virtually every instance the cause of obstruction appeared to be compression of the airway tube between the lower teeth and the Doughty blade of the modified Boyle Davis gag. There was no obvious type of dental occlusion. Although in most patients obstruction became obvious as soon as the gag was made surgical access difficult. 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