The needle phobic obstetric patient

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A 22-year-old primagravida with grade IV placenta praevia (placenta completely covering cervical os) presented for elective caesarean section at 38 weeks' gestation. She suffered from severe needle phobia. The previous day a blood sample for cross-match had been obtained under significant duress but on the day of surgery she was adamant, despite counselling regarding the risks to herself and the fetus, that she would not tolerate another percutaneous needle puncture while awake. On examination she was very anxious, her peripheral veins were barely visible or palpable and her airway was unremarkable. As a precaution, topical local anaesthetic (EMLA) had been applied to the dorsum of her hands and her antecubital fossae.

The options for anaesthesia were:

1. Regional anaesthesia
2. General anaesthesia (GA) with further counselling followed by intravenous (iv) cannulation and rapid sequence induction
3. GA with sedative oral or rectal premedication followed by iv cannulation and rapid sequence induction
4. GA with inhalation induction followed by iv cannulation.

Option 1 was discarded because of the patient's needle phobia. Moreover use of a regional technique is contentious when major haemorrhage is anticipated, as in grade IV placenta praevia, because sympathetic blockade impairs compensatory cardiovascular reflexes. Management may be stressful in the awake, possibly uncooperative, patient. Also, regional blockade should not be undertaken without prior iv access as this has been implicated as a cause of maternal death (Department of Health, 1996).

Further discussion of the benefits of iv cannulation before GA failed to persuade the patient to change her mind. She consented to iv cannulation only when 'completely anaesthetized', but not after sedation alone, so options 2 and 3 were also discarded.

Option 4 was chosen. Standard aspiration prophylaxis was administered consisting of ranitidine 150 mg orally the night before and 2 hours before surgery, and 0.3 M sodium citrate 30 ml orally immediately before induction. After a full explanation of the procedure the patient was placed in the supine wedge position on the operating table and standard monitoring commenced. A tourniquet was applied to the patient's left upper limb and a vein identified on the dorsum of her hand, and the patient was preoxygenated for 3 minutes.

GA was induced using an inhalational technique with 8% sevoflurane in oxygen. On loss of the eyelid reflex cricoid pressure was applied by the anaesthetic assistant with a force of approximately 10 N increasing to 30 N. A second anaesthetist then inserted a 14G iv cannula and administered suxamethonium 100 mg. The trachea was intubated within 90 seconds of induction commencing and thereafter anaesthesia proceeded uneventfully. The preoperative discussion and final decisions regarding the anaesthetic plan were carefully documented in the patient's notes.

Inhalational induction for caesarean section was commonplace until the 1950s, but the authors found no reports of its recent use. Rapid sequence induction is the accepted method for induction of GA for caesarean section in the UK. Opinion varies on the exact technique, but most agree that it involves preoxygenation, intravenous induction with thiopentone, muscular relaxation with suxamethonium, cricoid pressure, avoidance of mask ventilation and intubation with a cuffed tracheal tube (Thwaites et al, 1999).

The inhalational technique described above has these potential disadvantages:

- Laryngeal spasm, coughing, breath-holding and desaturation during induction
- Failure to secure rapid iv cannulation, necessitating intramuscular suxamethonium with slower onset of relaxation
- Risk of awareness, which might occur after the administration of suxamethonium during 'light' anaesthesia caused by loss of the airway; awareness is less likely if anaesthesia is supplemented by other sedative drugs, but these will delay recovery in the event of a failed intubation
- Non-cooperation by the patient
- Increased risk of aspiration
- Requirement for two anaesthetists.

Simple dislike of needles is very common, but an unshakeable refusal to consent to iv cannulation is unusual. Although unorthodox, the authors believe this was the most appropriate option under the circumstances. **HM**

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