EMERGENCY CAESAREAN SECTION IN A POOR RISK PATIENT IN NEPAL

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CASE REPORT
A 28-year-old Nepalese woman presented to the British Military Hospital in Dharan, Nepal. The history was obtained from her husband as she was too ill to give her own history.

She had been in labour for 2 days, had ruptured her waters spontaneously 24 h previously and was now bleeding per vaginam. On examination the woman was found to be extremely thin—her bones were visible subcutaneously—she looked exhausted, but was not actively bleeding from her vagina. Heart rate was 130 beat min⁻¹, arterial pressure 150/100 mm Hg and her temperature was 38.5 °C.

On obstetric examination by the duty midwife clinical signs were found to be consistent with 36 weeks pregnancy. The fetal heart sounds could not be heard clearly (a fetal scalp electrode is not available in Nepal). The cervix was 5–6 cm dilated with a high head presentation and excessive amounts of meconium were appearing in the patient's vagina. Her chest radiograph revealed extensive bilateral pulmonary tuberculosis (fig. 1). Haematological and biochemical assessment demonstrated: haemoglobin 4.6 g dl⁻¹, white cell count 19000 cells cm⁻³, of which 75% were polymorph nuclear leucocytes; erythrocyte sedimentation rate was 85 mm h⁻¹; serum bicarbonate concentration 15 mmol litre⁻¹; blood urea concentration 18 mmol litre⁻¹; serum sodium concentration 131 mmol litre⁻¹; serum potassium 1.8 mmol litre⁻¹. Testing of the faeces revealed ova of round worms (Ascaris lumbricoides), hookworms (Ancylostoma duodenale) and pinworms (Strongyloides stercoralis). Her weight was 28.5 kg.

The decision to undertake Caesarean section was made because of the very poor risk, potential infection of uterine contents and extreme maternal distress. Subarachnoid puncture at L3–4 was

[FIG. 1. Chest x-ray of patient, showing bilateral pulmonary tuberculosis.]

SUMMARY
This report describes the management of a poor risk Nepalese patient (active pulmonary tuberculosis, haemoglobin concentration 4.6 g dl⁻¹, weight 28.5 kg) requiring emergency Caesarean section for fetal distress. Subarachnoid blockade (0.5% bupivacaineplain 3.5 ml) was satisfactory; blood loss was around 400 ml and was replaced with Haemaccel and lactated Ringer’s solution (blood was not available). Although unresponsive at birth, the child had an Apgar score of 10 at 15 min.
performed and 0.5 % bupivacaine plain 3.5 ml was injected via a 25-gauge spinal needle.

A 14-gauge cannula was inserted to a peripheral vein and a central venous catheter (14-gauge) placed in the right internal jugular vein. An infusion of crystalloid solution was commenced, as blood of her group was not available in the hospital, and since both her husband and a cousin with the same blood group refused to donate any blood—assuming she was going to die. At operation the umbilical cord was found to be looped three times around the neck of the fetus. The baby was a live 2.8-kg boy and although he was unresponsive at birth (Apgar score 3 at 1 min) Apgar was 10 at 15 min.

The Caesarean section was performed by a general surgeon (as there is little justification for an obstetrician’s post for the very small British Military community in Nepal). Operative blood loss was 400 ml, the patient’s arterial pressure decreased to 80/60 mm Hg and the intravascular volume was expanded with 500 ml of Haemaccel and 1 litre of lactated Ringer’s solution as guided by measurements of arterial pressure and central venous pressure, both of which were restored to their preoperative values. In my experience in Nepal, the maintenance of arterial and central venous pressures within ± 5 % of their preoperative values in patients with hyperdynamic circulatory states resulting from severe anaemia is safe, as the slightest fluid overload leads to pulmonary oedema.

Antibiotics were commenced during the operation: gentamicin, metronidazole, ampicillin and cloxacillin—all administered i.v. Iron and vitamins were commenced on the same evening.

Antituberculous drugs were started the next morning with appropriate doses of streptomycin, thiacetazone and isonicotinic acid hydrazide, together with dexamethasone because of her poor general condition. The patient also received thiabendazole (Mintezole) for the treatment of her intestinal parasites. On the 1st day after operation she received 20 % Buminate Solution 200 ml.

On the 3rd day after operation she received a unit of fresh blood donated by a theatre technician of the same blood group. On the 5th day, when she was markedly better, her cousin donated a second unit of blood. She was discharged from the British Military Hospital 4 months later, on antituberculous treatment, with her healthy baby.

Haematological results on discharge were: Hb concentration 11.5 g dl⁻¹; serum sodium concentration 135 mmol litre⁻¹; serum potassium concentration 3.8 mmol litre⁻¹; serum bicarbonate concentration 25 mmol litre⁻¹; blood urea concentration 6 mmol litre⁻¹. Examination of the faeces revealed no ova, cysts or trophozoites. Her weight on discharge was 48 kg.

I have since administered isobaric intrathecal bupivacaine to poor-risk patients (a total of 25 patients) for various operations: for example, gangrene of lower limbs, massive pelvic and abdominal tumours, with secondary anaemia or pulmonary tuberculosis, or both, where i.v. induction and gas maintenance were deemed to carry exceptional risk. Cardiovascular stability was experienced more often than hypotension and tachycardia.