National ESMOE guidelines for district and regional hospitals

PROTOCOL FOR CAESAREAN SECTION UNDER SPINAL ANAESTHESIA

PREPARATION

Full history and examination
- NB contra-indications to spinal anaesthesia
- NB signs of hypovolaemia - decide whether the patient requires resuscitation first

Prepare the patient
- Premedication – sodium citrate 30ml orally, 0 - 30 minutes pre-operatively
- Good IV access, with 500ml clear fluid given as preload
- Urinary catheter

Prepare the theatre
- Full machine check, check ventilator settings
- Check essential equipment (mask, airways, laryngoscope, endotracheal tube, suction, wedge, pillow) and monitoring (ECG, NIBP, SpO_2, capnograph)
- Draw up essential drugs – ephedrine/etilephrine, atropine, suxamethonium, induction agent

TECHNIQUE

Administration of spinal
- Measure NIBP before starting, and set NIBP to read at 1 minute intervals
- Monitor ECG and pulse oximetry
- Oxygen supplementation via 40% facemask
- Administer 500ml of Ringer's lactate (or similar) while performing the spinal
- Position patient sitting, and inject 2-3ml of 2% lignocaine into the subcutaneous tissue over the L3/L4 interspace
- Use aseptic technique
- Using a 25 or 26g pencil point needle, with an introducer needle, perform dural puncture
- Inject hyperbaric, adrenaline-free bupivacaine 0,5% 1.8ml (=9mg) with 0,2ml (=10μg) fentanyl

Positioning after spinal injection
- Supine with wedge under right buttock
- Head and shoulders raised on a pillow

Monitoring after spinal injection
- Remain with patient, in direct contact and communication with her
- Measure NIBP every minute for at least 10 minutes, or until delivery (then every 2-3 minutes)
- Expect the blood pressure to drop and treat hypotension aggressively with ephedrine/etilephrine or phenylephrine.
- Actively monitor for signs of low cardiac output
- Monitor level of block, watch out for high spinal anaesthetic

Failed spinal
- If **no** effects after 20 minutes, repeat spinal injection.
- If partial block, decide on:
  - Conversion to GA
  - Local anaesthesia/ketamine supplementation
  - Delay surgery for spinal later
- If repeat injection has no effect, convert to general anaesthesia.

After Delivery
- Ask obstetrician to rule out second baby
- Give 2.5 IU oxytocin IVI slowly, over 1 minute

RECOVERY

Monitoring
- Administer oxygen via 40% venturi mask
- Monitor NIBP and SpO_2
- Make sure that the patient is not bleeding
- Make sure that the patient is adequately analgesed
- Infuse 20U oxytocin in one litre of clear fluid over 8 hours (125mls/hr)

Discharge from recovery room
- When height of spinal has decreased by 2 segments, and vital signs are normal

Compiled by the ESMOE Anaesthesia Working Group
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