South Australian Perinatal Practice Guidelines

Intrathecal morphine

Indication

- To provide analgesia after caesarean section

Relevant physiological or medical / surgical factors

- Increased respiratory drive of pregnancy
- Most women are highly motivated to mobilise after caesarean delivery
- The pain stimulus is that of a low abdominal wound with superimposed uterine contractions or 'after-pains'

Dose dependent side effects

- Pruritus - incidence of 60 %; of which 10 % need specific treatment
- Nausea and vomiting - incidence of 40 – 50 %; severe cyclical form for 10-12 hours in 2-3 %
- Late respiratory depression (up to 24 hours after administration) - clinically significant depression or arrest has not been reported in this population within the usual clinical dose range of up 250 micrograms when intrathecal morphine is used without other parenteral or intrathecal opioids
- Potential for all these significant opioid side-effects when other parenteral opioids or sedatives are administered within the first 24 hours after administration
- Herpes simplex reactivation - clear association after intrathecal morphine has not been established but avoid morphine if there is strong history of herpes

Contraindications

- Allergy to morphine
- Sensitivity to opioids, e.g. previous severe nausea / vomiting
- Additional sedative drug use

Technique

- Dose of morphine is 100-150 micrograms. Dose can be administered by pharmacy-prepared solution or preparation made in the operating theatre
- Use pharmacy-prepared solution of 500 micrograms in one mL vial when available
- When above solution is not available, prepare a one mL solution by serial dilution of standard preservative-free morphine sulphate 10mg / one mL as follows:
  o Draw 10 mg into 10 mL syringe and dilute with sterile normal saline 0.9 % to total volume of 10 mL
  o Draw off one mL of this solution into a one mL syringe (1000 micrograms / mL)
- Add morphine to local anaesthetic immediately before administration using filtered needle for all preparation

Recovery

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- Centrally-mediated hypothermia is common; transfer to postnatal wards is appropriate when core temperature is greater than 35.0˚ Celsius provided other observations are satisfactory

Postoperative management

- Managed on general postnatal ward
- Routine post-caesarean section observations - pulse, respiratory rate and blood pressure every hour for four hours and then every four-hours thereafter
- No other sedative or parenteral opioids in the first 24 hours - this to be recorded in drug chart using alert stickers
- Consider high risk care if at increased risk of respiratory complications e.g. Body mass index > 40

Adverse effects

Pruritis

- Usually requires no treatment
- Routinely prescribe parenteral naloxone 0.1 mg every 30 - minutes as necessary for severe pruritus
- Avoid antihistamines

Nausea and vomiting

- Metoclopramide 10 mg every 4 hours IV as necessary
- Tropisetron 2 mg every 12 hours IV if still symptomatic after six hours

Inadequate analgesia

- This is extremely uncommon, particularly if combined with non steroid anti-inflammatory drugs (NSAIDs) and women are encouraged to take oral analgesics as soon as tolerated, e.g. Panadeine Forte every 4 hours
- Severe breakthrough pain can be treated with subcutaneous morphine 2.5 mg every two hours as required
- Intravenous patient-controlled analgesia (PCA) is appropriate if there is complete failure of therapy; use in conjunction with nasal oxygen and pulse oximetry with one-hourly respiratory rate observation and consider transfer to high risk care

Respiratory depression

- Page anaesthetist
- Administer high-flow oxygen via face-mask
- Administer intravenous or subcutaneous naloxone 0.4 mg

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