Analgesia in Labour and Post LSCS Pain

Dr Athma Prasanna
Sr. Consultant
Department of Anesthesia
Royal Hospital   Muscat
Introduction

• Pain is a protective reflex.
• No Pain no Gain.
• Pain results in physiologic changes.
• Excessive pain produces detrimental effects.
• Detrimental effects affect mother and child.
• Pain needs mitigation.
PAIN IN LABOUR

• Recurring nature
• Increased frequency
• Extended period of time
• Pain + Work + Anxiety = STRESS
• Stress produces a series of changes in maternal and foetal physiology.
PAIN RELIEF TECHNIQUE

- SIMPLE
- EFFECTIVE – BOTH STAGES
- NO EFFECT ON MATERNAL AND FOETAL PHYSIOLOGY
PAIN RELIEF TECHNIQUE

• Non Pharmacologic

• Pharmacologic

• Systemic Routes

• Regional Techniques
Systemic Routes

- **Inhalational agents**: Ether, Chloroform, Entonox, Trilene, Methoxyflurane, Sevoflurane

- **Narcotics**: (Morphine, Pethidine, Fentanyl, Remifentanil)

- **Routes**: I.M., I.V., PCA (I.V.)

- **First stage of labour**
REGIONAL TECHNIQUE

• I STAGE

• II STAGE

• spinal, caudal, epidural, comb. spinal+epidural, bilateral sympathetic, paracervical block

• Epidural, Caudal, spinal and Pudendal
PAIN RELIEF TECHNIQUE

• REGIONAL ANALGESIA ARE BETTER THAN SYSTEMIC ANALGESIA. (Ramin 1995Am.J.Obstet.Gynecol )

• Effective pain relief in both stages.

• No effect on maternal and foetal physiology.

• No effect on the progress of labour.
EPIDURAL ANALGESIA IN LABOUR
INDICATIONS

- Normal labour
- Breech for vaginal delivery
- Multiple births
- PET
- Cardiac / Respiratory / Cerebrovascular disease
INDICATIONS (contd)

- Prolonged Labour
- Trial of labour
- Induction of labour
- Instrumental Delivery
Contraindications

- **ABSOLUTE**
  - unwilling mother
  - inability to setup I.V.
  - lack of resuscitative measures
  - Coagulation defect
  - Sepsis

- **RELATIVE**
  - Foetal distress
  - relapsing neurological diseases (M.Sclerosis)
  - Spinal deformities
COMBINATION OF L.A.

AND

NARCOTICS
PHARMACOLOGY

- Bupivacaine 0.0625% + Fentanyl 2ug/ml
- Bupivacaine 0.125% + Fentanyl 2ug/ml
- Bupivacaine 0.0625% + Sufentanyl 0.33 ug/ml
- Bupivacaine 0.125% + Sufentanyl 0.33 ug/ml
WHEN TO PLACE THE CATHETER

- In active labor
- Pain of sufficient magnitude
- Cervical dilatation need not be to a fixed point

* IDEAL-
  (a) In early labor
  (b) Ability to cooperate
F.A.Q.

• MEDICAL TEAM
  • Effect on labour?
  • Abdominal thrust?
  • Instrumental delivery?
  • Depressed baby?
  • Caesarian section?

• PATIENT
  • Complete relief?
  • Headache?
  • Chronic back pain?
  • Effect on the baby?
  • Ability to walk?
COMBINED SPINAL EPIDURAL (CSE)

- INITIAL DOSE OF I.T. OPIOID + L.A
- FOLLOWED BY EPIDURAL DOSE
- RAPID ONSET OF ANALGESIA
- NO ADVANTAGE IN EARLY ACTIVE LABOUR (1998)
- USEFUL IN LATE SEVERE PAIN
Remifentanil

- Short half life.
- Rapid onset.
- Short duration of action.
- Can be used till 15min of delivery.
- No potential harm to mother and baby.
- Used as intravenous PCA.
- Still under trial.
POST LSCS ANALGESIA
POST LSCS PAIN

- Differs from P.O. Analgesia.
- Burning (Somatic)
- Colicky pain (Visceral - uterine contraction).
- Iatrogenic pain – Syntocinon (Visceral).
- Limited period of time.
- Analgesics - no effect on baby/mother.
Types of Analgesia

- **Systemic**
  - Narcotics
  - NSAIDS
  - IM, IV, IVPCA,
  - Oral, Rectal.

- **Regional**
  - Wound Infiltration
  - Bilateral Ilioinguinal nerve block.
  - Spinal / Subarachnoid
  - Epidural
  - Caudal
Systemic

- Narcotics
- Pethidine
- Morphine
- Fentanyl
- Buprenorphine
- Sufentanyl
- Remifentanyl
- Tramodol

- NSAIDS
- Diclofenac
- Ketorolac
- COX-2 inhibitors - celocoxib, recocoxib, eterocoxib.
- Paracetamol (Acetoaminophen)
NARCOTICS

• Analgesic effect and excreted in breast milk.
• Pethidine (poor, short, N&V, sedation),
• Morphine (Good, longer, N&V, sedation)
• Fentanyl- (Good, short, no excretion).
• Buprenoprhine long, good, N&V, no excretion)
• Remifentanyl – not suitable for PO analgesia.
• Sufentanyl- not suitable for systemic routes.
• Tramodol - weak opioid
NSAIDS

- Improves the quality of postoperative analgesia.
- Reduces visceral component of pain following cesarean section.
- Decreases Intensity of uterine cramping pain.
- Pre incision analgesia prevent incidental pain after LSCS.**
- Pain at rest and with movement remains unchanged. ***
- 30-50% opioid sparing effect.


**NSAIDS (contd)**

- Exert a central analgesic effect following tissue injury.
- Decreases opioid induced PONV and sedation.
- Not pruritis, urinary retention, and respiratory depression.

**NSAIDS (contd)**

- IM Diclofenac (painful) **no excretion in B. Milk.**
- IV Ketorolac (bid/tid) – **no excretion in B. Milk.**
- Rectal – **variable potency.**
- Oral – **GI disturbance.**
- COX-2 inhibitors- celocoxib, recocoxib, eterocoxib. **oral preparation only.**
- Paracetamol (Acetoaminophen)- COX3 inhibitor - I.V. and oral- **no excretion in B. Milk.**
Recommendation

- Systemic
- Wound Infiltration
- Preincision –
- NSAID + Paracetamol BD
- I.V. PCA Fentanyl
- Minimum 24hrs

- Regional
- Subarchnoid
- Preincision
- NSAID+Paracetamol BD
- IV PCA Fentanyl
- Epidural infusion
- Preincision
- NSAID+Paracetamol BD