

# Pharmacological Pain Management

- Analgesics – systemic – affects entire body. Reduces pain without loss of consciousness.
- Anesthetics – loss of sensation to pain.
- Regional anesthetics – block sensation from a localized area without causing loss of consciousness.
- General anesthetics – systemic drugs that cause a loss of consciousness and sensation to pain.
- Anesthesiologist – physician who specializes giving anesthesia.
- Certified nurse anesthetist (CRNA) – registered nurse with advanced training in anesthetic administration.

# Physiology Of Pregnancy And Its Relationship To Analgesia And Anesthesia

- Hypoxia
  - Due to pressure of the enlarging uterus on diaphragm.
- GI tract
  - Increased risk of vomiting abd aspiration.
- Aortocaval Compression
  - Pressure on the abd aorta due to heavy uterus when in a supine position.
  - Increases the risk of hypotension and dev of shock.

# Advantages Of Pharmacological Methods

- Active participant
  - Helps her relax and work with each contraction.
  - Drugs do not relieve all pain and pressure sensations.
- Stress response
  - Results in fetal acidosis.
  - Cause hyperventilation and lead to resp alkalosis leading to metabolic acidosis.
  - Metabolic acidosis results in further fetal acidosis.

# Limitations Of Pharmacological Methods

- Mother and Fetus
  - Two persons are being medicated.
  - Any drugs given to mother can have prolonged effects on fetus.

# Analgesics And Adjunctive Drugs

- Narcotic Antagonist
  - Narcan – used to reverse resp depression in infants caused by opioid drugs – Meperidine.
  - Given IV or through endotrach tube.
  - Given immed after birth via umbilical cord vein.

# Analgesics and Adjunctive Drugs

- Narcotic (Opioid) Analgesics
  - Used most often in labor.
  - Used in small amts to avoid fetal resp depression.
  - Help woman cope with tol level of intermittent labor pains.
  - Avoided if birth is expected within the hr.
  - Don't want the med to peak at time of birth.

# Analgesics and Adjunctive Drugs

- Adjunctive Drugs
  - Enhance pain relieving action of analgesics and reduce nausea.
  - Hydroxyzine is given only by IM route using Z track.

# Regional Analgesics And Anesthetics

- Epidural space
  - Between dura mater and inside bony covering of brain or spinal cord.
- Regional anesthesia
  - Placement of an anesthetic in the epidural or subarachnoid space.
  - Blocks both pain and motor responses.
  - Still feels pressure and some pain.
  - Provides satisfactory pain relief yet allows woman to be awake and participate in birthing process.

# Regional Analgesics And Anesthetics

- Local Infiltration
  - Injection onto perineal area for episiotomy, just before birth and fetal head is visible.

# Regional Analgesics and Anesthetics

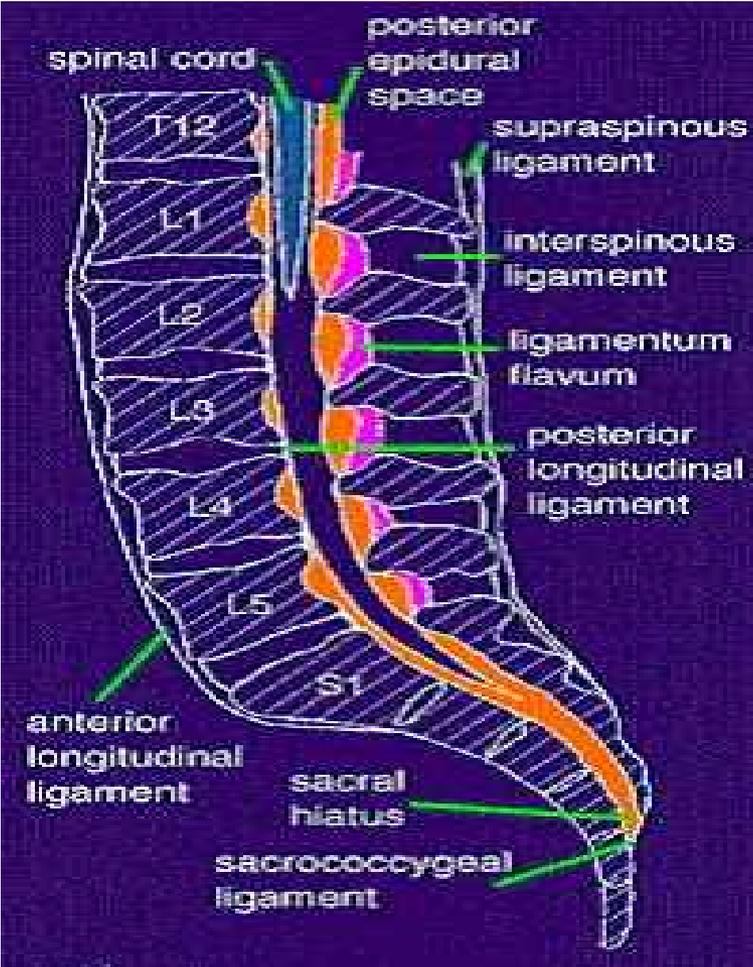
- Pudendal Block
  - Vaginal births
  - Provides adequate anesthesia for an episiotomy and for low forceps birth.
  - Inject the pudendal nerves on each side of mother's pelvis.
  - Can be done through vagina.
  - Can not be given when contractions start.
  - Numb within a few mins.
    - Adverse reactions
      - Hematoma to vagina.
      - Abscess

# Regional Analgesics and Anesthetics

- Epidural Block
  - In sitting or lying position.
  - MD penetrates epidural space with a large needle.
  - 2 to 3 ml of local anesthetic is injected through a catheter.
  - If test dose is normal, a larger amt is given to begin the block.
  - Can assume any position but is requested not to be in supine.

# Regional Analgesics and Anesthetics

- Limitations
  - Abnormal blood clotting.
  - Infection at site
  - Hypovolemia
- Adverse Reactions
  - Maternal hypotension – most common. Large amounts of fluids are given 500 to 1000 of LR.
  - Watch for urinary retention.
  - May feel need to push in second stage, this stage may be longer if woman had an epidural.



# Regional Analgesic And Anesthetics

- Subarachnoid Block
    - Similar to epidural.
    - Must lay flat on her back for several hours.
      - Side Effects
        - Hypotension
        - Post spinal headache.
- May need blood patch to relieve headache.

# General Anesthesia

- Reasons
  - Emergency C section – no time for epidural.
  - C section Mom who doesn't want an epidural.

# General Anesthesia

- Adverse Effects On Mom
  - Regurgitation with aspiration of acidic stomach content.
  - Aspiration pneumonia.
  - Many woman begin labor with a full stomach.
  - Food and fluids are restricted to prevent nausea and vomiting.

# General Anesthesia

- Adverse Effects On Neonate
  - Respiratory depression – drugs cross placenta.
  - To avoid this, time of administration of med and clamping of cord should be short as possible.

# The Nurse's Role In Pharmacological Techniques

- Pain Management
  - Begins at time of admission.
- Allergies
  - Both drugs and food.
- Safety
  - Siderails up.
  - Reinforce anything anesthesia may tell her.
  - Drug is injected between contractions.
  - Epidural will block sensation if rectal pressure – nurse may need to coach her about the right to start to push and when to stop.