

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.
 - May slow progress of labor when given early.
 - Neonatal resp depression.

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.
 - Stills 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

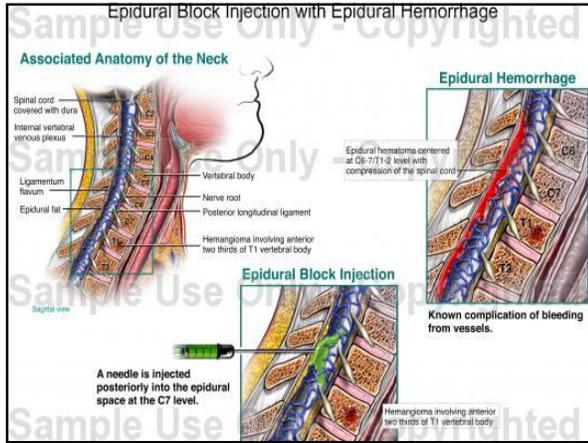
- **Pudendal Block**
 - Vaginal births
 - Provides adequate anesthesia for an episiotomy and for low forceps birth.
 - Inject the pudendal nerves on each side of mother's pelvis.
 - Can be done through vagina.
 - Can not be given when contractions start.
 - Numb within a few mins.
 - Adverse reactions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

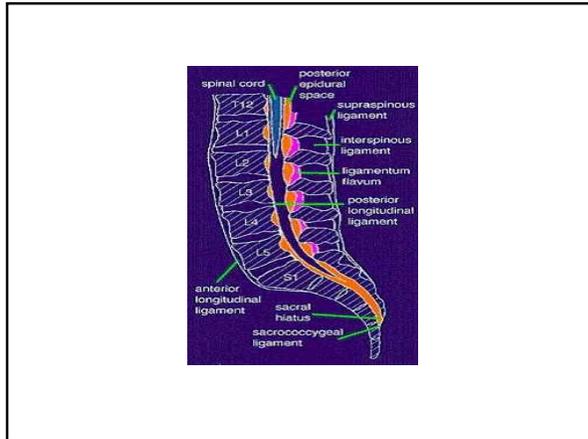
Regional Analgesics and Anesthetics

- **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.
 - 20 -40 min. – effective.
 - Pump controlled by pt.

Regional Analgesics and Anesthetics

- **Limitations**
 - Abnormal blood clotting.
 - Infection at site
- **Hypovolemia**
- **Adverse Reactions**
 - **Maternal hypotension** – most common. Large amts of fids are given 500 to1000 of LR.
 - Watch for urinary retention.
 - May feel need to push in second stage, this stage may be longer if woman had an epidural.
 - Itching
 - Longer to deliver due to being told when to push.





Epidurals

Duramorph

Astromorph

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.
