

PAIN RELIEF AND COMFORT IN LABOR



INTRODUCTION

Pain is experienced by most of the women during the childbirth.

It is due to this intense pain, that most of the woman fear of the childbirth. The factors which affect the intensity and amount of pain experienced by woman in labour are;

- Tolerance of pain
- Expression of pain
- Perception of pain
- Coping mechanisms
- Communication of pain
- Cultural characteristics
- Environment of pain

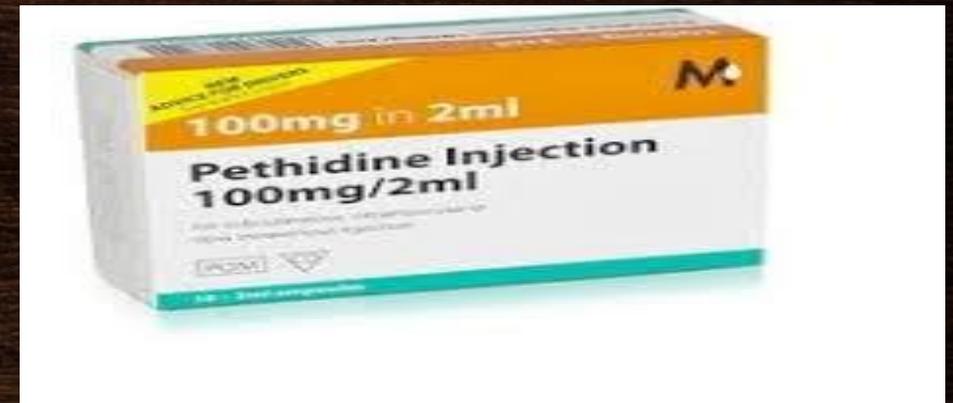
CAUSES OF PAIN ARE -

- **Hypoxia** caused to uterine cells during contractions.
- Dilatation of cervix
- **Stretching** of the lower uterine segment and pressure on the neighbouring structures.

A.ANALGESICS :

The analgesics can be given by **subcutaneous, intramuscular or intravenous route**. Commonly used analgesics are;

1.Pethidine – it is commonly used and is of **low cost**, acting on the receptors of the body. It is usually administered **intramuscularly** in doses of **50-150 mg** and takes about **20minutes** to have an effect. For faster effect, it can be administered IV.



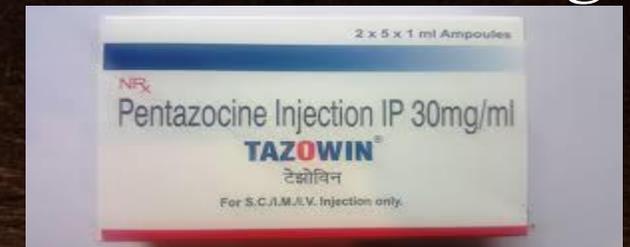
2. Meperidine hydrochloride (demerol) : it can be administered **intravenously** (12.5 -25mg) or **intramuscularly** (75mg) causing effect in 10mins(by IV).

Side effects: **MOTHER-** nausea, vomiting, drowsiness, dizziness, palpitation, tachycardia, convulsions and hypotension. **FETAL-** neonatal respiratory depression, thermoregulatory interference, lethargy.



3. **Meptazinol**- it has same effect as that of **pithidine**, but causes less **respiratory depression** of the newborn.

4. **Pentazocin (fortwin)** – the action of fortwin is shorter and is given in a dose of **30-40 mg** ,it causes some drug dependence and respiratory depression.



5. **Diamorphine** – it is found to be effective for upto **4hours** in labour. It is also more rapidly eliminated from **maternal and neonatal plasma**.



6. Inhalation analgesia- the most commonly used inhalation analgesia in labour is **entonox** (made up of 50% nitrous oxide) and is administered by **face mask or inhaler**. Other inhalers are **halothane**, which provides **uterine relaxation**, but there is a risk of **respiratory depression and PPH**.

Inhalation Analgesia

Entonox (N₂O:O₂ = 50:50), %,

Advantages:

- Easy to administer (no needles or PDPH)
- "Satisfactory" analgesia variable
- Minimal neonatal depression

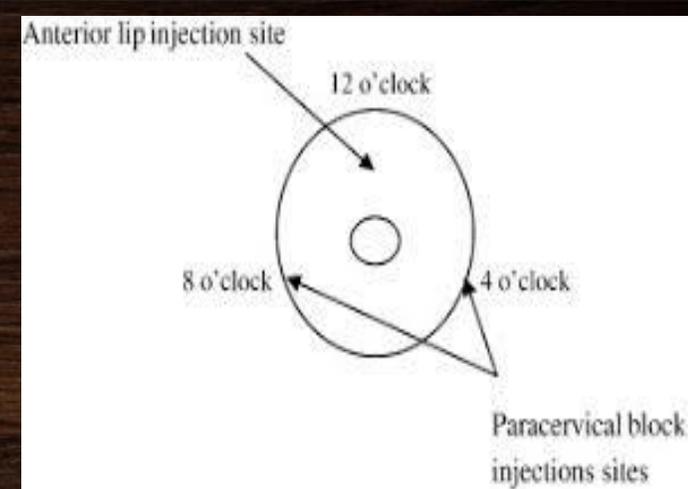


B.ANAESTHESIA

Regional anesthesia – in the regional anesthesia , injection is given to block the transmission of painful stimuli from the **uterus, cervix, vagina, and perineum to the thalamic pain** centers in the brain. Injection of the local anesthetic can be given one time or continuously. The methods used are listed below;

- Paracervical block
- Pudendal block
- Epidural analgesia
- Spinal analgesia

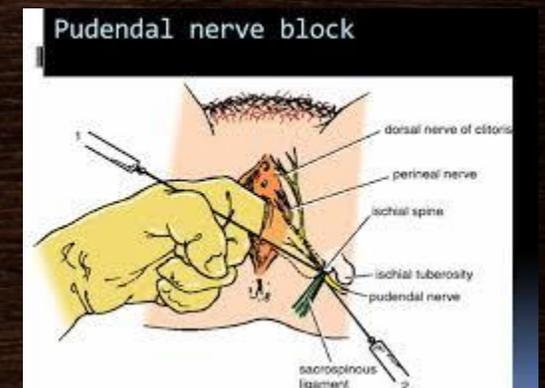
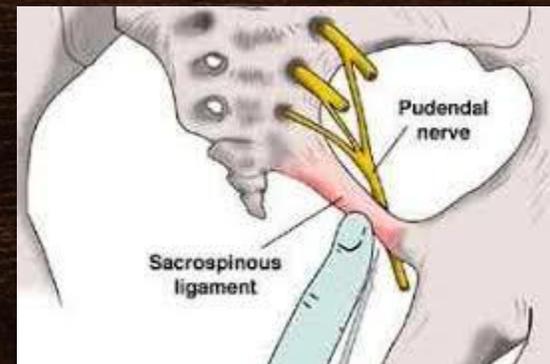
Paracervical block



- In paracervical block , **local anaesthetic injection** is given transvaginally, near to the outer rim of the cervix.
- When the injection is given during labour, **mother toxic reaction and hematoma formation** due to uterine vessel damage are the main drawbacks of using this block in mothers.
- **Fetus** can also develop bradycardia, acidosis and even death.

Pudendal block

- In this perineal analgesia is achieved by giving the injection around the **pudendal nerve**.
- It can be given just before **the spontaneous or low forceps** delivery of the infant to provide anaesthesia for birth and repair of the **episiotomy**.
- This anaesthesia does not affect **uterine contractions**.
- During this procedure, nurse should provide support to the mother and assess for developing of **haematoma**.

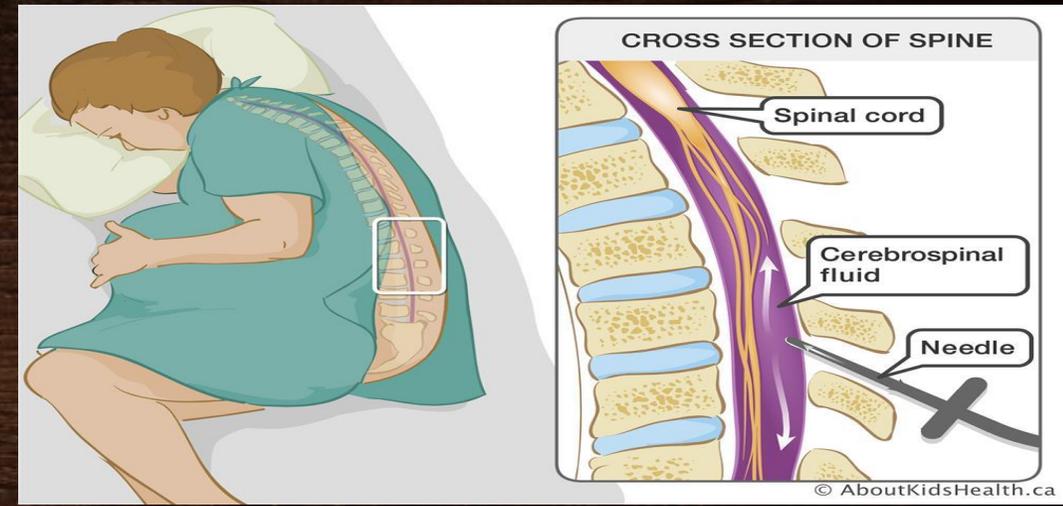


Epidural analgesia

- I. It can be given by a **single injection** or by **continuous injection** into the epidural space at the second, third or fourth lumbar interspace.
- II. The pain relief is obtained by blocking the conduction of impulses along the **sensory nerves** as they enter spinal cord.
- III. To avoid the risk of supine hypotension, mother is positioned in **left lateral** for the procedure.
- IV. The **fetal heart rate** and **blood pressure** of mother are to be examined throughout the procedure.



Spinal anaesthesia



- It provides anaesthesia for **vaginal or caesarian delivery**.
- The anaesthetic is directly given into the **spinal fluid**.
- Spinal anaesthesia has effect on the bearing down reflex of the mother.
- There is no effect on the fetal respiration, but can cause maternal headache and **temporary hypotension**.
- It should not be given in the cases where the mother is having infection at the **puncture site**, hypovolemia, hypotension or hypertension, CPD and central nervous system disease.

THANK YOU

