Department of Anesthesia Techniques
Title of the lecture: - Anesthesia for obstetrics & gynecology

Dr. Bassim Mohammed **Dr. Hawraa Diaa**
B.M.T. Montadher Talib

Anesthesia for obstetrics & gynecology

(Practical Anesthesia)

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By:

Dr. Bassim Mohammed **Dr. Hawraa Diaa**

B.M.T. Montadher Talib

Anesthesia for obstetrics & gynecology

Anesthesia for pregnancy and caesarian section procedure.

Physiological changes in pregnancy

Respiratory changes:

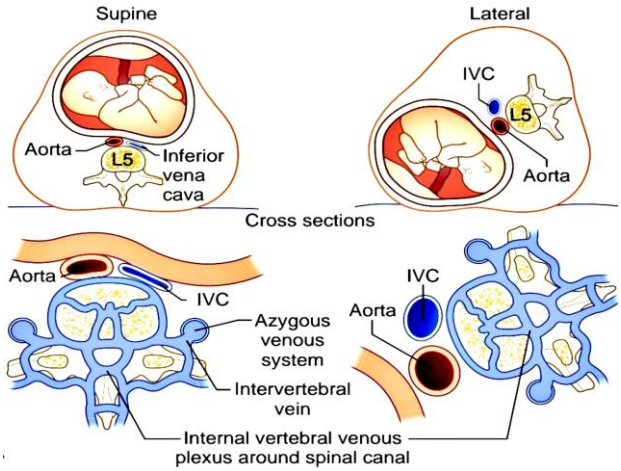
1- Decrease Functional residual capacity
2- Pre-oxygenation mandatory to avoid hypoxemia in pregnant patients.

CVS changes: 35% ↑ body volume

- Cardiac output and blood volume increase to meet accelerated maternal and fetal metabolic demands.
- Increased basal metabolic rate

Aortocaval compression

When a pregnant woman lies supine, arterial pressure decreases because the uterus compresses the inferior vena cava, reducing venous return and cardiac output. Prevented or relieved by left tilt or lateral position is required in some cases.



Gastrointestinal changes:

Gastroesophageal reflux are common during pregnancy. This factor is a high risk for regurgitation and pulmonary aspiration. And we can solve it by using premedication such as (Antacid, antiemetic prophylaxis)

Analgesia for Labor & Vaginal Delivery

A. There are numerous techniques that help mothers in labour. These include:

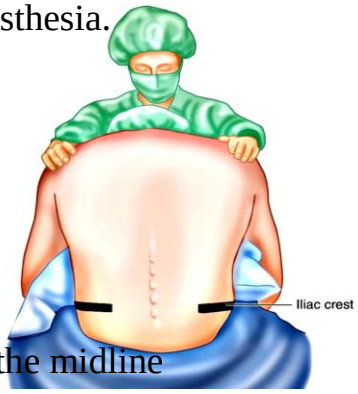
♣ Prepared childbirth.
♣ Massage, warm water baths
♣ Transcutaneous electrical nerve stimulation (TENS).

B. The three most commonly used types of analgesic agents in labour. These include:

1. Inhaled N2O
2. Opioids: fentanyl or remifentanil patient control analgesia
3. Regional techniques (epidural, Combined spinal/epidural) is remains the most effective form of pain relief for labour. provide excellent analgesia.

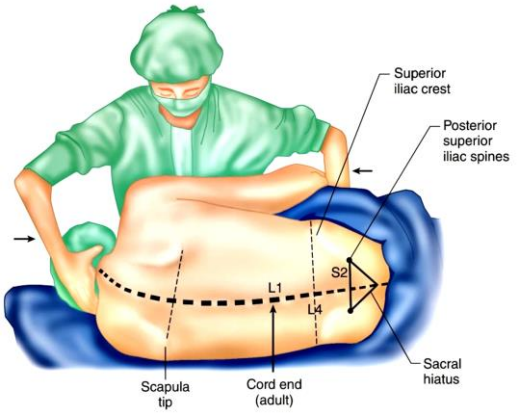
Caesarean section: spinal

Spinal anesthesia is the most commonly used technique for elective Caesarean sections, hypotension is much commoner than with epidural anesthesia.



Technique

1- History/examination/explanation and consent.
2- Ensure that antacid prophylaxis has been given
3- Establish 16G or larger IV access.
4- Start crystalloid co-load
5- Position the patient. sitting position usually makes finding the midline easier.



- A lateral position is associated with a slower onset of block; full lateral position is maintained until the block has fully developed.

- perform spinal anesthetic at L3/4 interspace, using a 25G or smaller pencil-point needle. (The level of the iliac crests usually corresponds to the spinous process of L4. Inject the anesthetic solution e.g. 2.5mL hyperbaric bupivacaine (Marcaine).

Caesarean section: general anesthesia

The majority of complications relate to the airway. Failed intubation.

Indications for GA include

1- Maternal request
2- Urgent surgery
3- Regional anesthesia contraindicated or failed
4- Additional surgery planned at the same time as a Caesarean section

Technique

1. History and examination. Airway assessment (mouth opening, Mallampati score, thyromental distance, neck mobility)
2. Antacid prophylaxis
3. Start monitoring
4. Position supine with a left lateral tilt or wedge
5. Pre-oxygenate for 3–5min or, in an emergency, with 8-10 VC breaths
6. Perform RSI with an adequate dose of induction agent

7. A 7.0 mm ETT is adequate for ventilation.
8. Ventilate with 50% O2 in N2O. If severe fetal distress is suspected, then O2 75% O2 or higher may be appropriate.
9. Use of the inhalational agent

At delivery:

1. Give 2–5 IU of oxytocin IV bolus. If tachycardia must be avoided, then an IV infusion of 30–50IU of oxytocin in 500mL of crystalloid.
2. Administer opioid
3. If a woman has eaten shortly before surgery, consider passing a large-bore or gastric tube to empty the stomach before extubation.

At Recovery

1. extubation awake. Be aware that extubation is a high-risk time.
2. Give additional IV analgesia, as required.

Selects the best single choice

1- Physiological changes in pregnancy all true except one:

a- Decrease FRC b- Increased basal metabolic rate
c- cardiac output and blood volume increase d- decrease body volume

2- all is types of analgesic agents in labour except one:

a- Inhaled N2O b- Opioids
c- General anesthesia d- Regional techniques

3- All are Indications for GA in obstetric except one:

a- Because Aortocaval compression b- Urgent surgery
c- Regional anesthesia contraindicated or failed d- maternal request