INDUCTION AND AUGMENTATION OF LABOUR

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INDUCTION AND AUGMENTATION OF LABOUR

- **Induction of labour (IOL):- is the process whereby labour is initiated by artificial means.**

- **augmentation:-is the artificial stimulation of labour that has began spontaneously.**

- In the absence of medical indications for induction
- fetal maturity should be confirmed by either
- appropriate pregnancy dating, ultrasonic
- measurements or amniotic fluid analysis (e.g.,
- lecithin/sphingomyelin [L/S] ratio).

- **Cervical ripening:-**
- **effacement and softening of the cervix.**

- **Cervical ripening before the actual induction of labor is necessary for the for success of induction.**

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- **Methods for cervical ripening:-**

- **1. Intravaginal application of PGE2.**
- **2.Cystic (synthetic PGE1).**
- **3.Intrauterine catheter insertion or osmotic dilators.**
- **4.Manual separation of chorioamnion membranes from lower uterine segment.**
- **5.Artificial rupture of the membranes.**

- **Indications for induction of labor(IOL):-**

- **Before term (IOL) is indicated only when the continuation of pregnancy represents a significant risk to the fetus or mother.**

- **IOL before term requires assessment fatal lung maturity and can be accelerated within 24-48 hours by glucocorticoids.(If delay does not harm fetes or mother)**

•Contraindications:-

- when normal labor is dangerous to the mother or fetes , this is considerd as contraindication for induction and augmentation of labor.
- Previous uterine surgery with complete transection of uterine wall is contraindicated.
- Lower segment CS is not a contraindication as it is considered a trial of labor after CS, but requires careful monitoring.

INDICATIONS & CONTRAINDICATIONS FOR INDUCTION AND AUGMENTATION OF LABOUR

INDUCTION		AUGMENTATION
INDICATIONS		
Maternal		
Preeclampsia Diabetes Mellitus Heart disease	Prolonged pregnancy Intrauterine growth restriction (IUGR)	Abnormal labour (in the presence of inadequate uterine activity) Prolonged latent phase Prolonged active phase
Fetoplacental		
Abnormal fetal testing Rh incompatibility Fetal abnormality	Premature rupture of membranes (PROM) Chorioamnionitis	
CONTRAINDICATIONS		
Maternal Absolute Contracted pelvis Relative Prior uterine surgery Classic caesarean birth Complete transection of uterus	*Fetoplacental* Preterm fetus without lung maturity Acute fetal distress Abnormal presentation	Same contraindications as for maternal and fetoplacental

TECHNIQUES FOR INDUCTION AND AUGMENTATION OF LABOUR

- A hospital establishment guidelines for the proper use of oxytocin for induction and augmentation of labour.
- An assessment and plan of management must be outlined in the patient's medical record.
- Indications for induction of labour should be clearly stated.
- Assess the likelihood of success by a careful pelvic examination to determine the Bishop score, which evaluates the status of the cervix and the station of the fetal head.

- A high Bishop score (9 to 13) is associated with a high likelihood of a vaginal delivery, whereas a low score (<5) is associated with a decreased likelihood of success.
- Before induction is begun, blood cross matching should be done.
- Careful monitoring of the fetal heart rate and uterine contractions.

TABLE 8-4
BISHOP SCORE TO ASSESS LIKELIHOOD OF SUCCESSFUL INDUCTION OF LABOUR

Physical findings	0	1	2	3
CERVIX				
position	Posterior	Mid	Anterior	___
Consistency	Firm	Medium	Soft	___
Dilatation	0	1 – 2	3 – 4	≥ 5
Effacement (%)	0-30	40 – 50	60 – 70	≥ 80
fetal head				
Station (cm)	-3	-2	-1	1

OXYTOCIN

- **Principles for oxytocin use to induce or augment labour:-**

- **1. It should be given intravenously to allow it to be discontinued quickly if a complication such as uterine hyperstimulation or fetal distress develops.**

- **2. It is infused with a calibrated infusion pump that can be easily adjusted.**

- **3. Induction of labour in general should not exceed 72 hours.**

- **4. when labour is established, the infusion rate and the concentration may be reduced, especially during the second stage of labour, to avoid risks of hyperstimulation and fetal distress,which frequently occur once labour has been established.**

COMPLICATIONS

- 1. excessive infusion rate can cause hyperstimulation and fetal distress from ischemia.
- 2. A tetanic contraction can occure lead to rupture of the uterus.
- 3. Because oxytocin has a similar structure to antidiuretic hormone, it has an intrinsic antidiuretic effect and will increase water reabsorption from the glomerular filtrate, Severe water intoxication with convulsions and coma can occur rarely when oxytocin is infused continuously for more than 24 hours.
- 4.Prolonged oxytocin infusion can cause uterine muscle fatigue and postdelivery uterine atony , which can increase the risk for postpartum haemorrhage.

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THANK you