

Precipitate Labor Disorders

Precipitate dilatation occurs if cervical dilation occurs at a rate of 5 or more centimeters per hour in a primipara or at 10 cm or more per hour in a multipara.

Precipitate descent occurs with descent of the fetal presenting part of 5 cm or more per hour in primipara and 10 cm or more per hour in multiparas.

Precipitate labor may result from either (causes):

1- extremely strong uterine contractions or

2- low birth canal resistance.

abnormal contractions may be associated with administration of oxytocin or abruptio placentae.

Little is known about causes of low birth canal resistance.

management

- If oxytocin administration is the cause of abnormal contractions, it may simply be stopped. The problem resolves in less than 5 minutes.
- The patient should be placed in the lateral position to prevent any pressure on the inferior vena cava.
- If excessive uterine activity is associated with fetal heart rate abnormalities, and this pattern persists despite discontinuation of oxytocin, B-sympathomimetic such as terbutaline or ritodrine can be given slowly by intravenous injection if there are no contraindications.
- Magnesium sulfate has also been recommended to decrease uterine contractions.

complications

1. Lacerations of the birth canal are common
2. when the birth canal is rigid and extraordinary contractions occur, uterine rupture may result.
3. amniotic fluid embolism
4. predisposing to postpartum hemorrhage.
5. Perinatal mortality is increased secondary to hypoxia, and possible intracranial hemorrhage

Abnormalities of the Powers

Uterine dystocia denotes any abnormality in the force or coordination of uterine contractility that prevents the normal progress of labor.

Uterine dysfunction

3 categories:

- 1- hypotonic dysfunction (mostly seen in primigravida) & overdistended uterus.**
- 2- hypertonic dysfunction,**
- 3- uncoordinated dysfunction.**

normal uterine activity during labor

- 1- relative intensity of contractions is greater in the fundus than in the midportion or lower uterine segment (this is termed fundal dominance)**
- 2- the average value of the intensity of contractions is more than 24 mm Hg**
- 3- in the active phase of labor, pressures increase to 40–60 mm Hg)**
- 4- the basal resting pressure of the uterus is between 12 and 15 mm Hg**
- 5- contractions are well synchronized in different parts of the uterus**
- 6- the frequency of contractions one every 2–3 minutes during the active phase**
- 7- the duration of effective contraction in active labor reaches 60 seconds**
- 8- the rhythm and force of contractions are regular.**

Intra uterine pressure measurement

- An internal uterine pressure catheter measures intra-amniotic pressure,**
- This technique shows baseline uterine resting pressure, contraction intensity and duration, and frequency of uterine activity.**
- It is the most accurate method of diagnosing uterine dysfunction and evaluating treatment.**

Hypotonic dysfunction

- **Hypotonic dysfunction responds well to oxytocin **but** care must be taken to rule out cephalopelvic disproportion and malpresentation.**
- **Active management of labor has been shown to decrease perinatal morbidity and cesarean section rates.**

Induction and Augmentation of Labor

- Induction of labor is the process of initiating labor by artificial means
- augmentation is the artificial stimulation of labor that has begun spontaneously

A. Indications for induction

The following are common indications for induction of labor:

- 1. Maternal**—Preeclampsia, chronic hypertension, diabetes mellitus, heart disease.
- 2. Fetal/maternal**—Prolonged pregnancy, Rh incompatibility, fetal abnormality, chorioamnionitis, premature rupture of membranes, placental insufficiency, suspected intrauterine growth restriction.

B. CONTRAINDICATIONS

Absolute contraindications to induction of labor include: contracted pelvis; placenta previa; uterine scar due to previous classical cesarean section, myomectomy entering the endometrium, hysterotomy, or unification surgery; transverse lie.

Relative contraindications to induction of labor include: breech presentation, oligohydramnios, multiple gestation, grand multiparity, previous cesarean section with transverse scar, prematurity.

Complications of Induction of Labor

induction of labor may exposes the mother to more distress and discomfort and complications:

- (1) failure of induction;
- (2) uterine inertia and prolonged labor;
- (3) tetanic contractions of the uterus, causing premature separation of the placenta, rupture of the uterus, and laceration of the cervix;
- (4) intrauterine infection
- (5) postpartum hemorrhage.

FOR THE FETUS

An induced delivery exposes the infant to:

1. the risk of prematurity if the estimated date of conception has been inaccurately calculated.
2. Precipitous delivery may result in physical injury.
3. Prolapse of the cord may follow amniotomy.
4. Fetal distress
5. Fetal death (demise)

ASSESSMENT

- Fetal maturity
- No contraindications
- Cervical condition:
softening and effacement

Bishop score

Table 10-2. Bishop method of pelvic scoring for elective induction of labor.

Examination	Points		
	1	2	3
Cervical dilatation (cm)	1-2	3-4	5-6
Cervical effacement (%)	40-50	60-70	80
Station of presenting part	-1, -2	0	+1, +2
Consistency of cervix	Medium	Soft	...
Position of cervix	Middle	Anterior	...

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Cervical Ripening

Cervical ripening prior to induction of labor could facilitate the onset and progression of labor and increase the chance of vaginal delivery, particularly in primigravid patients.

Methods of Cervical Ripening

- A. PROSTAGLANDIN (misoprostol and dinoprostone)**
- B. RELAXIN (vaginal gel)**
- C. BALLOON CATHETER (foley catheter)**
- D. HYGROSCOPIC DILATORS**
(Laminaria tents and lamitel)
- E. Cervical sweeping**

Relative contraindications to the use of prostaglandins for cervical ripening:-
PGE2 should not be used in patients with a history of

1. asthma,
2. glaucoma,
3. or myocardial infarction.
4. Unexplained vaginal bleeding,
5. chorioamnionitis,
6. ruptured membranes,
7. or previous cesarean section

PGE1 and PGE2 have similar side effect and risks including:

- 1- fetal heart rate deceleration
- 2- fetal distress
- 3- emergency cesarean section
- 4- uterine hypertonicity
- 5- nausea, vomiting, fever,
- 6- and peripartum infection

Induction of Labor

A. OXYTOCIN:

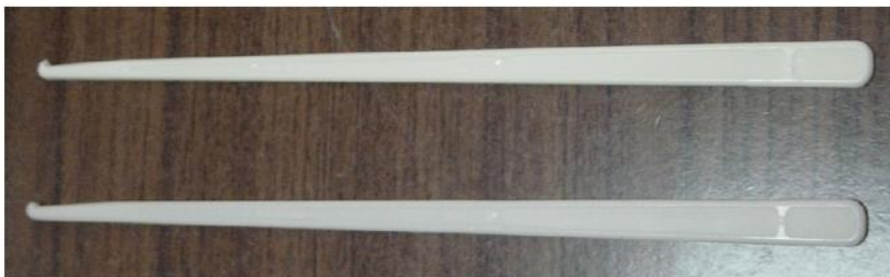
(very diluted and titrated dose)

B. AMNIOTOMY:

amniotomy may be an effective way to induce labor in carefully selected cases with high Bishop scores

Amni Hook

Used for pregnant lady to rupture the membrane & inducing labor



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- **X-ray** of pregnant lady with a fetus in longitudinal lie with anencephaly
- Delivered by NVD
- Induced at 34 wks



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