

Obstetric Operations

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110043

1) Induction of Labour: (IOL)

- IOL means initiation of uterine contraction (after the period of viability) by any method for purpose of vaginal delivery.
- Augmentation of labour is process of stimulation of uterine contractions that are already present but found to be inadequate.

→ Purpose of Induction of Labour:

- when risks the of continuation of pregnancy either to mother or to fetus is more, induction is indicated.

→ Indications of IOL:

- Pre-eclampsia, eclampsia
- DM, chronic renal disease
- cholestasis of pregnancy.
- post maturity
- abruptio placenta
- IUGR
- Rh-isoimmunization.
- PROM
- Hydrominos.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110043

→ Contra-indications:

- contracted pelvis & EPD
- Malpresentation (breech, transverse, oblique)

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110043

- previous CS
- Genital herpes infection
- Heart disease
- cord prolapse
- cervical carcinoma.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-11004.

→ Dangers of Induction of Labour :

- Tendency of prolonged labour due to abnormal uterine action.
- Increased need of analgesia during labour.
- Hypoxia due to uterine dysfunction
- prolonged labour
- Operative interference.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-11004.

→ Parameters to Assess prior to IOL :

- when induction is considered for fetal interest, ensure gestational age & maturity (pulmonary) of fetus.
- Induction for maternal interest may compel to ignore the fetus.

→ Factors for successful IOL :

- period of gestation : pregnancy nearer the term or post-term
- pre-Induction score :- Bishop score ≥ 6
 - Dilatation of cervix

sensitivity of uterus : - Positive oxytocin sensitivity test is favourable for IOL

cervical ripening : - Favourable in parous woman

case profile : - low bishop score.

- cervical ripening is a series of complex biochemical changes in cervix which is mediated by the hormones.
- There is an alteration of both cervical collagen & ground substance.
- ultimately, cervix becomes soft & pliable.

iii) Methods of Induction:

→ Medical Induction:

- Drugs used :- Prostaglandins PGE₁, PGE₂
 - Oxytocin
 - Mifepristone.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110042

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110042

a) Prostaglandins:

- Act locally (autocrine & paracrine hormones) on contiguous cells.
- PGE₂ & PGE_{2α} cause myometrial contraction.
- PGE₂ : cervical ripening PGE_{2α} : myometrial contraction.
- PGE₂ has greater collagenolytic properties & sensitises myometrium to oxytocin.
- Intra cervical application of dinoprostone (PGE₂ - 0.5mg) gel is gold standard for cervical ripening.
- It may be repeated after 6hrs for 3-4 doses.
- woman on bed rest.
- Monitored for uterine activity & FHR.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110042

→ Misoprostol (PGE₁):

- currently used as transvaginal or oral for IOL.
- oral use is less effective than vaginal administration.

- A dose of 25ug vaginally every 4 hrs.
- with this dose, the risk :-
 - uterine hyperstimulation
 - Meconium stained liquor
 - Labour Irregularities.
- Total 6-8 doses.
- It is contra-indicated in women with previous LSCS.

14

→ Oxytocin :

- It is an endogenous uterotonic that stimulates uterine contractions.
- Oxytocin receptors present are more on fundus than in cervix.
- Oxytocin acts :-
 - receptor mediation
 - voltage mediated calcium channel
 - prostaglandin production.
- Because of short life (3-4 mins) plasma levels fall rapidly when I/V is stopped
- Oxytocin is effective for induction of labour when cervix is ripe.
- It is less effective cervix ripening agent.

→ Mifepristone :

- progesterone receptor antagonists
- Mifepristone blocks progesterone & glucocorticoid receptors.
- 200mg P/V for 2 days. for cervix ripen & to induce labour.
- Onapristone is more selective progesterone receptor antagonists.

LIBRARY
 ANANSHA INSTITUTE OF NURSING
 RZ-C-117 GOPAL NAGAR
 NAJAFGARH, NEW DELHI-11004.

* Surgical Induction.

ARM

Stripping the membranes

a) ARM :

→ Mechanism of onset of labour :

- stretching of cervix
- separation of the membranes (liberation of prostaglandins)
- reduction of amniotic fluid volume.

→ Effectiveness depends on :

- state of cervix
- station of presenting part.

→ Advantages of amniotomy :

- high success rate
- chance to observe amniotic fluid for blood or meconium
- Access to use fetal scalp electrode

→ Limitations :

- cannot be used in unfavourable cervix
- cervix should be at least 1cm dilated.

→ Immediate benefits of ARM :

- lowering of BP in pre-eclampsia
- Relief maternal stress in hydramnios
- Control bleeding in APH.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110046

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110046

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-110046

- Relief of tension & initiation of labour.

→ Hazards of ARM:

- cord prolapse
- amnionitis
- Injury
- liquor amni embolism.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-11004.

a) How rupture of Membranes:

- Membranes below the presenting part over-lying the internal os are ruptured to drain out some amount of amniotic fluid.

→ Contraindications:

- chronic hydrominos
- placenta abruptio.

→ After membrane rupture:

- color of amniotic fluid.
- status of cervix
- station of head
- Detection of cord prolapse
- Quality of FHR
- vulval pads.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, NEW DELHI-11004.

→ Hazards:

- cord prolapse
- uncontrolled escape of amniotic fluid.

- Injury to cervix or presenting part
- Rupture of vasa- previa leading to fetal blood loss
- Amnionitis.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, JEW DELHI-11004

b) Stripping the membranes:

stripping of membranes means digital separation of chorioamniotic membranes from the wall of cervix & lower uterine segment.

It is thought to work by release of endogenous prostaglandins from membranes & decidua.

Criteria:

- Fetal head must be well applied to cervix
- cervix should be dilated.

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, JEW DELHI-11004

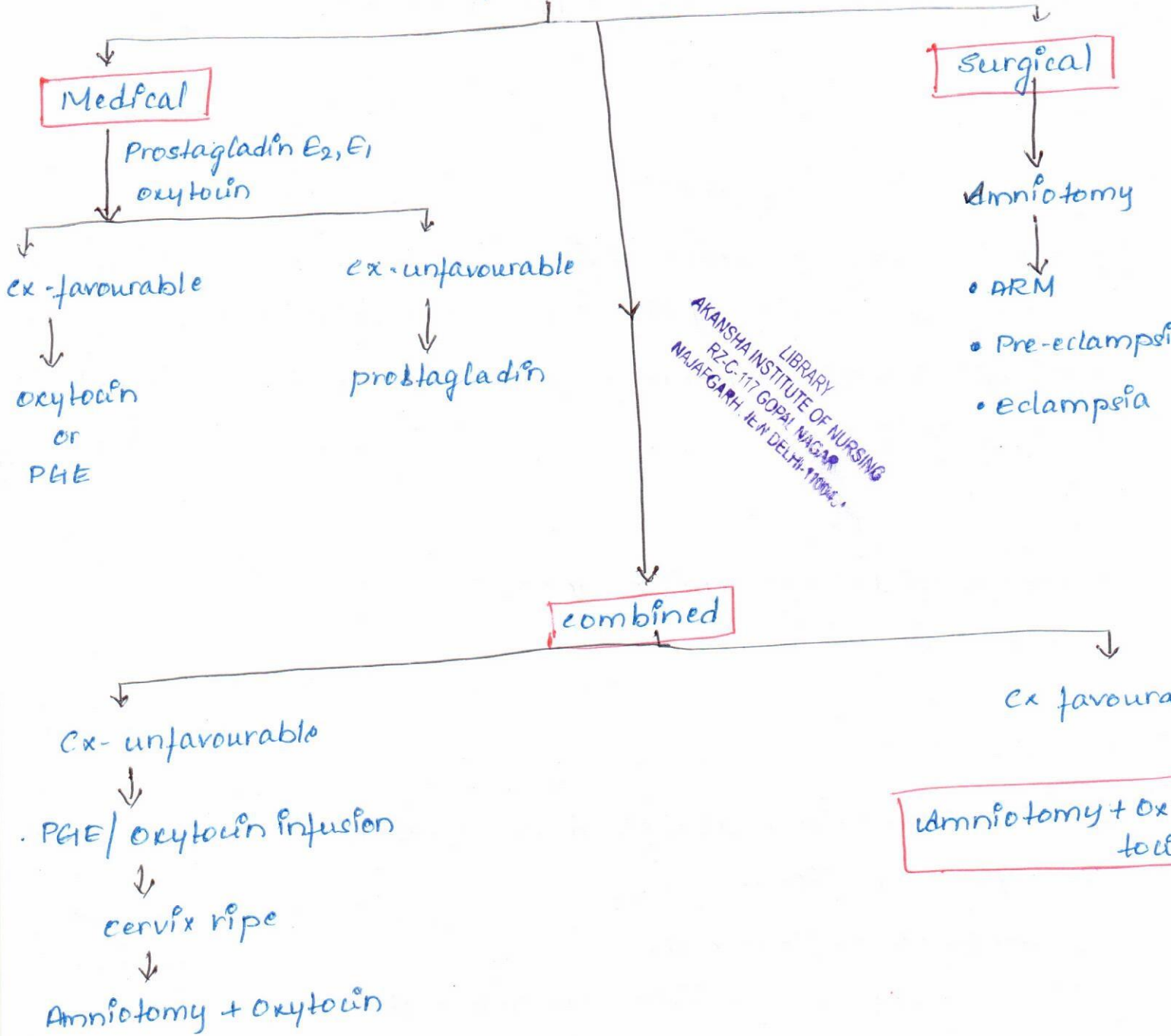
Combined Method:

combined medical & surgical methods are commonly used to increase the efficacy of induction.

Advantages: - More effective

- shortens the induction-delivery

Scheme of Induction Protocol



LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, JEN DELHI-110045

LIBRARY
AKANSHA INSTITUTE OF NURSING
RZ-C-117 GOPAL NAGAR
NAJAFGARH, JEN DELHI-110045