PROM

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Definition

- PROM: Premature Rupture of Membranes, syn: prelabor rupture of the membranes.

- It is defined as spontaneous rupture of the membranes any time beyond 28 weeks of pregnancy but ***before the onset of labour*** is called PROM.

Incidence : approximately 10% of all pregnancy

Preterm PROM
Term PROM
Post term PROM

Causes

- In majority causes are not known
- Possible causes are -

✳Increased friability of membranes

✳Decreased tensile strength of membranes

✳Polyhydramnios

✳Cervical incompetence

✳Multiple pregnancy

✳Infections- chorioamnionitis,UTI,lower genital tract infection

✳Short cervix - cervical length <2.5 cm

✳Prior pretrum labour

✳Low BMI <19 kg/m2

Diagnosis

- Patient presented with

- Amenorrhoea beyond 28 weeks

- Escape of watery discharge per vaginam either form of a gush or slow leak.

◉ Confused with-

(a) Hydrorrhoea graviderum- excessive decidual glandular secretion

(b) Incontinence of urine.

Confirmation of diagnosis

- Clinical examination

✦On inspection -if huge fluid then we can see the flow of fluid through introitus.

✦Per speculum exam with aseptic precaution with help of Cucos's bivalves double blade vaginal speculum - fluid coming from cervical ex. os.

- Lab test-from collected fluid from the post. fornix (vaginal pool) for-

a) Detection of pH by Litmus or Nitrazine paper.

b) To note the character of ferning pattern smeared slide examined under microscope.

c) Centrifuge cell with Nile blue sulphate - showing orange blue colour of exfoliated fat containing cells sebaceous glands from fetus.

Detection of pH

As pH increases from 4.5-5.5(normal vaginal pH during pregnancy) to 6-6.2 due to liquor (7-7.5).

Nitrazine paper turn from yellow to blue at pH>6

Cont. investigations

- USG - to see the fetal well being by biophysical profile and AFI
- CBC
- Urine RME & C/S
- HVS for C/S
- Vaginal pool for estimation of phosphatidyl glycerol and L:S ratio
- CTG for non stress test.

Dangers of PROM

- Less serious when happen near term than earlier in pregnancy.
- In term spontaneous onset of labour starts in 80-90% of cases within 24 hours.
- It is one of the important causes of **preterm labour & prematurity.**
- Chance of **ascending infection** if labour fail to start within 24 hrs
- Liquor get infected & causes **chorioamnionitis & fatal infection** supervenes
- **Cord prolapse** specially when also with malpresentation.
- **Dry labours** due to continuous escape of liquor
- **Placental abruptio**,
- Fetal pulmonary **hypoplasia** specially in pre trem PROM is a real threat when associated with oligo
- Neonatal **sepsis, RDS, IVH & NEC** specially in preterm
- Perinatal **morbidity** eg cerebral palsy high.

Management

- Depends on time or gestational age.
- At 1st confirmation of diagnosis -aseptic examination is must
- Hospitalisation
- Examined with Cusco’s & exclude cord prolapse
- Vaginal digital exam generally avoided
- Patient is put to bed rest & applied sterile vulval pad to observe further leakage

Cont.

- Observe patient is in labour or not
- Search any evidence of sepsis
- Protect of fetal survival in that institution, if delivery occurs.
- Monitoring of the patient maternal pulse, temp, FHR,4 hourly

Term PROM

- If the patient is not in labour and there is no evidence of infection or fatal distress, she is observed carefully
- Generally 90% sp onset of labour ensue within 24 hrs
- If labour not started or there reasons not to wait, induction of labour with oxytocin is commenced forthwith.
- Caesarean section if obstetric indications like H/O 2 previous C/S

Preterm PROM

- Main concern is to balance the risk of infection in expectant management (while pregnancy is continued) versus the risk of prematurity in active intervention.
- Patient should be transferred with the “foetus in utero”to an unit able to manage preterm neonates effectively

If gestational weeks beyond 34 weeks

- At this time & after this time perinatal mortality & morbidity from preterm labour is less compare to infection.
- Labour generally starts spontaneously within 48 hours , otherwise induction is instituted either with oxytocin or prostaglandin.
- Presentation other then vertex merits caesarean section

If gestational weeks before 34 weeks

- Conservative attitude generally followed in absence of any maternal or fatal indications.
- On rare occasion with absolute bed rest, leak seal spontaneously & pregnancy continue.

All cases of PROM

- Prophylactic antibiotics- injectable broad spectrum antibiotics can be used . Drug of choice is Erythromycin. Injectable for 48 hours then oral therapy for 5 days or until delivery is recommend.

- Corticosteroid to stimulate surfactant synthesis to reduced the risk of neonatal RDS<IVH & NEC.

- PROM alone may accelerate fatal lung maturation .

SCHEME FOR MANAGEMENT OF PROM

- Maternal health assessment
- Fetal: Gestational age, weight, pulmonary maturity

- Septic work up (Cervical swab, urine culture)
- Non-stress test (NST p. 108)
- Biophysical profile (p. 109)

To monitor maternal pulse, temperature, fetal heart rate and to start prophylactic broad spectrum antibiotics

Amnionitis, placental abruption, fetal death/distress or labor process

ABSENT

Pregnancy < 34 weeks

Expectant management to continue for fetal maturity. Hospitals with limited resources —to transfer the patient with 'fetus in utero' to an center equipped with NICU

Pregnancy ≥ 34 weeks and < 37 weeks

to wait for spontaneous onset of labor for 24-48 hours

Fails

Induction of labor with oxytocin (CS for non-cephalic presentations)

Pregnancy ≥ 37 weeks

to wait for spontaneous onset of labor for 24 hours

Fails

Induction of labor with oxytocin (CS for obstetric reasons)

PRESENT

Expeditious delivery

Intrapartum antibiotics (broad spectrum)

NICU

Heathy mother & healthy baby

Thank you all