

Prelabor Rupture of the Membranes (PROM)

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Diagnosis

The incidence of PROM is (10.7%) of all deliveries, essential of diagnosis are:

1. History of gush of watery discharge.
2. Demonstration of amniotic fluid leakage.

Prelabor or Premature ROM (PROM) usually refers to the physiological cell degradation, apoptosis, focal thinning of a certain point of the membranes after Braxton - hicks contractions.

Preterm prelabor ROM (< 37 weeks) occurs in 6% of Prelabour ROM and usually refers to pathologic conditions as intrauterine infection (ascending infection) and patulous os, hydraminos, recurrent antepartum hemorrhage, smoking, decreased tensile strength of the membranes and positive past or family history.

Sterile speculum examination remains the first step to differentiate ROM from vaginitis and urinary incontinence¹.

During speculum examination, watch for:

- Leakage from the cervical os.
- Meconium - vernix.
- Cord prolapse.
- Cervical condition (dilatation–effacement).
- Sampling for fetal lung maturity testing or (culture and sensitivity).

If you are in doubt (Grade C evidence):

- Repeat sterile speculum after allowing the patient to lie supine for 20-30 minutes.
- Nitrazine test turn blue and positive Ferning test.
- Inspection of the patient's pad after 30 minutes walking.
- Repeat ultrasound assessment².

Early signs of amnionitis are (Grade B evidence):

- Low grade fever.
- FHR > 160 beats/minute.
- MHR > 100 beats/minute.
- Rising CRP titre.

You should not wait till late signs of amnionitis appear, such as:

- Established fever.
- Uterine tenderness.
- Foul odor of vaginal discharge.

The alarming cutoff of total leukocytic count is 16000/cc because of the physiological leucocytosis during pregnancy or caused by corticosteroids if given³.

Management

a) Proper patient counselling and liaising with neonatologists.

b) < 24 weeks:

Termination is preferred due to low rates of fetal salvage and high maternal risks (**Grade C evidence**).

c) 24-26 weeks:

Controversial grey zone, should be a senior obstetrician decision.

d) 26-34 weeks:

Expectant management (**Grade A evidence**):

- Erythromycin 250 mg / 6 hours for 10 days or until delivery, whichever comes first.
- Corticoids to induce lung maturity (see ASJOG No. 1, issue 3, page 185)
- Tocolysis is accepted only for 48 hours to give corticosteroids, (you should exclude amnionitis and consult a senior obstetrician).

e) 34-36 weeks:

Controversial grey zone.

f) > 36 weeks:

- Immediate induction by oxytocin (not prostaglandins) regardless the parity or the

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cervical condition (for better maternal and fetal outcome) (**Grade A evidence**).

- Ampicillin 2 gm / 8 hours I.V. till one dose after labor.
- In certain circumstances you may delay the induction for few hours to start induction in suitable working hours (consult a senior obstetrician) (**Grade C evidence**)⁴.
- Start with sterile speculum examination for all cases and don't do PV unless the patient is actively in labor. Avoid any unnecessary vaginal examination till delivery.
- In case of bleeding or abdominal pain, consider placental abruption.
- Amnioinfusion may be done in case of fetal decelerations because of cord compression (must consult a senior obstetrician) (**Grade B evidence**)⁵.

References

1. American College of Obstetricians and Gynecologists: Premature Rupture of Membranes. ACOG Practice Bulletin. No. 1, 1998.
2. Kenyon S, et al. Broad-spectrum antibiotics for preterm, prelabour rupture of fetal membranes: The ORACLE I randomised trial. *Lancet*. 2001; 357-979.
3. Mercer M, et al. Antibiotics therapy for reduction of infant morbidity after preterm premature rupture of the membranes: a randomized controlled trial. *JAMA*. 1997; 278-989.
4. Seaward P, et al. International multicentre term prelabor rupture of membranes study: evaluation of predictors of clinical chorioamnionitis and postpartum fever in patients with prelabor rupture of membranes at term. *Am J Obstet Gynecol*. 1997; 177-1024.
5. Hannah M, Ohlsson A, Farine D, et al. Induction of labor compared with expectant management for prelabor rupture of the membranes at term. *N Engl J Med*. 1996; **334**: 1005-10.

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