Prelabour Rupture of Membranes at Term

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Preamble

Guidelines outline recommendations, informed by both the best available evidence and by midwifery philosophy, to guide midwives in specific practice situations and to support their process of informed decision-making with clients. The midwifery philosophy recognizes the client as the primary decision maker in all aspects of her care and respects the autonomy of the client (CMBC, 2006).

The best evidence is helpful in assisting thoughtful management decisions and may be balanced by experiential knowledge and clinical judgment. It is not intended to demand unquestioning adherence to its doctrine as even the best evidence may be vulnerable to critique and interpretation.

The purpose of practice guidelines is to enhance clinical assessment and decision-making in a way that supports practitioners to offer a high standard of care. This is supported within a model of well-informed, shared decision-making with clients in order to achieve optimal clinical outcomes.

Definitions

Prelabour rupture of membranes (PROM) is defined as spontaneous rupture of the membranes at term before the onset of regular uterine contractions (Enkin et al., 2000). PROM is differentiated from PPROM, which refers to preterm prelabour rupture of the membranes, i.e.: before 37 weeks gestation.

Incidence

A Cochrane Review by Tan and Hannah reported an incidence of term PROM of approximately 8% (2002).

Prognosis

Among women who experience PROM, 70% will go into labour within 24 hours, about 90% will go into labour within 48 hours and 2-5% will remain undelivered after 72 hours. Approximately 2-5% of women will remain undelivered after 7 days (Enkin et al., 2000).

Summary of the literature

The Cochrane review of induction versus expectant management of term PROM found no difference in mode of delivery or rates of neonatal infection between both groups. They found increased rates of chorioamnionitis and endometritis in the expectant management group, along with increased admittance of neonates to special care nurseries.

The TERM PROM study also found no significant difference in rates of neonatal infection or mode of delivery between induction and expectant management. They found that the lowest rate of maternal fever and chorioamnionitis was in the induction with oxytocin group. In addition, women who had inductions were less likely to say that they liked nothing about their treatment.

Secondary analysis of the TERM PROM study revealed that GBS-positive women with PROM should be offered antibiotic prophylaxis and induction of labour, which is the management strategy recommended by the Society of Obstetricians and Gynecologists of Canada (SOGC, 2004).

The consensus in the literature is that both expectant management and induction are reasonable options for GBS-negative women and their babies.

Risk Factors Associated with Term PROM

(Cunningham et al., 2001; Gilbert and Harmon, 2003)

- Vaginal infection
- Low socioeconomic status
- Poor nutrition and/or hygiene
- Cigarette smoking
- Distended uterus: polyhydramnios, multiple gestation
- Fetal malpresentation
- Uterine anomaly
- Previous cervical surgery
- Trauma
- Idiopathic

Differential Diagnosis

- urinary incontinence
- vaginal discharge
- semen
- release of mucous plug
- rupture of chorion (rare)

Clinical Assessment

Clinical assessment of term PROM varies tremendously based on such factors as GBS status and length of ROM. The following represents a general guideline to be adapted to the particular clinical scenario.

1. Confirm rupture:
   a. Obtain a detailed history (onset, amount, colour, odour, activity at that time, continuous or one event). Note that a woman who reports a sudden gush of fluid from the vagina followed by uncontrollable leaking is correctly self-diagnosing 90% of the time (Garite, 1995 as cited in Spiby, 2005).

   b. If the history is not conclusive perform additional assessments:
      - avoid digital exam
      - nitrazine (false positive rate 15%; Enkin et al., 2000)
      - sterile speculum exam for pooling
      - ferning
      - ultrasound finding of oligohydramios in the presence of a history of sudden release of fluid is strong confirmatory evidence of rupture (Enkin et al., 2000)
2. Confirm fetal movement or fetal heart rate, rule out cord prolapse
3. Assess for infection.
4. Assess maternal and fetal well-being as well as GBS status.
5. Inform the woman of the potential benefits of management options, i.e.: expectant management or induction of labour.

6. If GBS positive, offer GBS prophylaxis & induction of labour (SOGC, 2004).
7. In the event the client declines immediate induction of labour, make a plan regarding when she will re-consider, and address any questions the client may have about folk remedies for induction of labour, such as castor oil or oil of verbena.

Expectant Management

Expectant management is appropriate if the fluid is clear, the presenting part is engaged, and the mother and fetus are well.

Advise the woman:

- Advise the woman to put nothing in to her vagina and not to bathe.
- Advise the woman to monitor the leaking fluid for changes in colour or odour.
- Advise the woman to take her temperature q4h and to report fever, or any flu-like symptoms. In the event signs of chorioamnionitis develop, consult a physician for antibiotics and induction.
- Advise the woman to monitor fetal movement.
- Avoid vaginal exams until active labour if possible.
- Develop a plan with the woman regarding how long she wants to wait for spontaneous labour.
- If GBS unknown treat with antibiotics after 18hours of rupture (SOGC Guideline on GBS).
- Consultation with a physician is indicated in the event of prolonged rupture of the membranes (CMBC, 2005).

Induction of Labour

Of all inductions done in BC between April 1, 2002 and March 31, 2003, nineteen percent were for term PROM (BCRCP, 2005). The Society of Obstetricians and Gynecologists of Canada recommends induction with IV oxytocin (SOGC, 2001). There is continued debate about the use of Cervidil in the case of term PROM. Currently, the makers of Cervidil advise against its use in the case of ruptured membranes (BCRCP, 2005). The midwife will consult with a physician to coordinate an induction of labour.

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