

# Preterm Premature Rupture Of Membrane With Hand Prolapse

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## Abstract

Preterm premature rupture of foetal membranes (PPROM) is associated with considerable perinatal morbidity and mortality and significant maternal morbidity. This case report highlights foetal hand prolapse as one of the possible complications during conservative management of PPRM.

## INTRODUCTION

Premature rupture of the fetal membranes (PROM) occurs in 1 to 3 percent of pregnancies<sub>1</sub> and is associated with considerable perinatal morbidity and mortality and significant maternal morbidity<sub>2</sub>.

Management of patients with pPROM remains controversial<sub>3</sub>, however, most physicians advocate expectant management in extreme cases of prematurity.

Expectant management in the setting of preterm PROM has been associated with increased incidence of fetomaternal infections, cord prolapse, pulmonary hypoplasia, fetal distress<sub>4</sub>. Foetal hand prolapse is a relatively uncommon complication of expectant management for PROM in our setting. We hereby present a case of preterm PROM who developed hand prolapse while being managed expectantly

## CASE REPORT

Mrs O.E was a 36year old unbooked G<sub>3</sub>P<sub>2</sub> alive admitted with a one day history of drainage of liquor at 29 weeks gestation. There was no associated fever, abdominal pain, urinary symptoms, trauma nor recent coitus. Her first confinement was in 1993 with vaginal delivery of a live female infant at term.

During her second confinement, she had a history of preterm premature rupture of membranes at 36weeks gestation, when she was delivered by caesarian section on account of co-existing breech presentation. The baby's birth weight was 2.7kg. The puerperium was uneventful. In the index pregnancy, she had an episode of painless vaginal bleeding two weeks prior to presentation. This resolved spontaneously

following admission and conservative management in a private facility where she registered for ante-natal care. Examination revealed a young woman, afebrile, not pale, anicteric with pulse rate of 82 beats/minute and blood pressure 110/70mmHg. The fundal height was compatible with 30 weeks cyesis, singleton fetus in longitudinal lie and cephalic presentation. Fetal heart rate was heard and regular at 136 beats/minute. Sterile speculum examination revealed a pool of liquor in the posterior fornix and jets of liquor trickling down from the cervical os on coughing. An assessment of preterm PROM in a patient with previous caesarian section was made.

She was admitted and the following investigations were carried out: Full blood count and differentials, Mid stream urine and high vaginal swab (HVS) for microscopy, culture, and sensitivity (HVS yielded candida albicans and other results were within normal limits). Obstetric ultrasound on admission revealed a viable singleton fetus with mean gestational age of 30 weeks and estimated fetal weight of 1.72kg. There was adequate liquor and the placenta was anterior and in the uterine body. No gross fetal anomaly was seen.

She was placed on prophylactic Augmentin 375mg tds, oral metronidazole 200mg tds, oral fluconazole 600mg statim as well as weekly intramuscular dexamethazone 12mg 12hrly in two doses. Daily fetal kick chart was kept. Regular fetal heart rate monitoring and perineal pad inspection as well as serial ultra sound scans were ordered. Her clinical condition remained stable with no clinical evidence of infection. The foetal status monitoring was satisfactory. However, on the

13th day of admission and at the gestational age of 31 weeks, she complained of something protruding per vaginum. There was no associated abdominal pain. She was afebrile with pulse rate of 88beats/minute and blood pressure 120/70mmHg. Fundal height was 30cm in oblique lie with head in left iliac fossa. Fetal heart rate was heard at 160 beats/minute (regular). Vaginal examination revealed a foetal arm protruding from the introitus. No umbilical cord was seen or felt in the vagina. An assessment of preterm PROM and hand prolapse was made.

She was counselled on the need for immediate delivery and consent for caesarian section obtained. The neonatologist and anaesthetist were duly informed. She had caesarian delivery of a live male infant with Apgar score 2 and 5 at first and fifth minutes respectively. Birth weight 2.07kg and estimated blood loss of 400ml. The baby was admitted into the neonatal intensive care unit for further management. Baby was discharged a week later following antibiotics therapy and phototherapy for neonatal jaundice. The mother was also discharged on the 8th post operative day following removal of stitches on the previous day, to be seen in the post-natal clinic for follow-up

### DISCUSSION

Preterm PROM accounts for one-third of all preterm deliveries which is the most frequent sequelae. Once pPROM has been diagnosed, the management must be balanced between the risk of prematurity and that of maternal and fetal infection, if conservative management is chosen. Many obstetricians will institute conservative management in preterm PROM before 34 weeks gestation. However if fetal lung maturity can be ascertained at or beyond 32 weeks gestation, the risk of expectant management often exceeds that of delivery, hence they are best managed by prompt induction of labour.

The occurrence of hand prolapse, though a possible complication is very rare and also a worrisome development. Failure of early resort to caesarian delivery can lead to ischaemic necrosis of the presenting forearm which may require subsequent amputation.

Respiratory distress syndrome was not seen in the baby possibly because of corticosteroid administration and steroid release following stress of fetal membrane rupture. Other possible neonatal complications of prematurity like intra

ventricular haemorrhage, neonatal sepsis and necrotising enterocolitis were absent in this baby.

Conservative management of preterm PROM remote from term tends to balance the risk of prematurity against intra-uterine infection and other complications like compound presentation and abruptio placenta. Close fetomaternal surveillance and prompt intervention with immediate delivery following complication like hand prolapse improves the maternal and neonatal outcome.

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