



EXPECTANT OR IMMEDIATE DELIVERY? A REVIEW OF MANAGEMENT OUTCOMES OF PRETERM PRELABOR RUPTURE OF MEMBRANE

Obstetrics & Gynaecology

Dr. Bhatu Jaydeep Third year resident, GMERS Medical College And Hospital, Sola, Ahmedabad

Dr. Nilesh Chauhan* Associate Professor, GMERS Medical College And Hospital, Sola, Ahmedabad
*Corresponding Author

ABSTRACT

Introduction: Preterm premature rupture of membranes (PPROM) is the spontaneous rupture of the fetal membranes during pregnancy before 37 weeks gestation in the absence of regular painful uterine contractions. It increases the risk of prematurity and leads to other perinatal and neonatal complications with 1-2% risk of fetal death.

Materials and Methods: Medical records were reviewed by using the predesigned proforma records of women who had PROM during the study period were retrieved and data extracted. Information sort were socio-demographic characteristics (maternal age, parity, occupation and gestational age), birth weight, Apgar scores at 1st and 5th minutes, need for neonatal resuscitation and admission to new born special care unit fetal outcome.

Conclusion: There is no substantial reduction in risk of sepsis and prematurity in the immediate delivery group. Better outcome in delayed delivery may be explained due to our management protocol of antibiotic and steroid administration. Expectant management and immediate delivery are potential options in these patients, and each has its own merit and demerits

KEYWORDS

INTRODUCTION

- Preterm premature rupture of membranes (PPROM) is the spontaneous rupture of the fetal membranes during pregnancy before 37 weeks gestation in the absence of regular painful uterine contractions
- Premature rupture of membrane (PROM) is the rupture of the fetal membranes before the onset of labour
- Preterm PROM complicates 3-8% of pregnancies and leads to one third of preterm deliveries
- It increases the risk of prematurity and leads to other perinatal and neonatal complications with 1-2% risk of fetal death³
- It can lead to significant fetal perinatal morbidity such as respiratory distress syndrome, neonatal sepsis, umbilical cord prolapse, placental abruption and fetal death

AIMS AND OBJECTIVES

- The patient must have ruptured fetal membranes spontaneously the gestational age must be below 37 completed weeks
- Labour must not start within 1 hour following spontaneous membrane rupture
- All cases of artificial rupture of fetal membranes are to be excluded from the study
- **TYPE OF STUDY:** retrospective analysis of PPRM cases
- **STUDY PERIOD:** 6 month-1st January 2018 to 30th June 2018

MATERIALS AND METHODS

- Medical records were reviewed by using the predesigned proforma records of women who had PROM during the study period were retrieved and data extracted
- Information sort were socio-demographic characteristics (maternal age, parity, occupation and gestational age), birth weight, Apgar scores at 1st and 5th minutes, need for neonatal resuscitation and admission to new born special care unit fetal outcome
- Maternal complications which could be reasonably be assumed to have resulted from PROM such as postpartum endometritis, disseminated intravascular coagulopathy, maternal sepsis.

RESULTS

Table 1. Maternal age- group with PPRM

Maternal age (yrs)	Frequency	Percentage
16-20	1	2.9
21-25	7	20.6
26-30	15	44.1
31-35	10	29.5
36-40	1	2.9
41-45	0	0

Table 2. Material morbidity with PPRM

Age	Parity	Gestation age	Latency period (hrs)	Complications
36	2	28	20	Chorioamnitis/unhealthy placenta
33	2	29	12	Chorioamnitis/ichthyosis
29	1	32	6	Enterococci sepsis
26	1	36	8	Pyrexia
24	2	29	6	PPH/chorioamnitis
36	2	30	14	Pyrexia
32	1	29	6	Wound infection

Table 3. Comparison of GA, PPRM, Latency Period, birth weight and perinatal morbidity

GA at PPRM (wks)	Birth weight (kg)		Perinatal morbidity (sepsis/RDS)	No of cases	%	Latency period	
	<2.5kg	>2.5kg				>24hrs	<24hrs
28-30	10	0	17	10	23.8	5	17
31-34	11	2	2	13	30.9	2	10
35-36	6	13	1	19	45.3	0	8

- During the study period, 599 deliveries were recorded. There was 76 cases of prelabor rupture of fetal membranes, out of which 34 were cases of preterm prelabor rupture of membranes, while 42 were cases of term prelabor rupture of membranes.
- This showed an incidence of 7% for premature rupture of membranes in general and 5.7% for preterm premature rupture of membranes of all deliveries

DISCUSSION

- Harding et al demonstrated that use of corticosteroid in preterm PROM before 34 weeks gestation reduces perinatal morbidity and mortality by reducing the risk of respiratory distress syndrome, intraventricular hemorrhage and necrotizing enterocolitis
- In this study, steroid was used in all cases of PPRM below 34 weeks and this may be responsible for low incidence of respiratory distress syndrome, intraventricular haemorrhage and necrotizing enterocolitis observed in this study
- This current study showed a peak incidence at the midreproductive age group of 26-30 years (44.1%). The risk of infection is significant following PPRM
- Infection was the most important complication of PPRM and similar observation was noted by Stuart¹ and his colleagues. Infection rate of 13.9 percent was noted in this study in the mothers both intrapartum and postpartum
- In this study, there was increase in incidence of infection with increase latency period more than 24 hours. The rate of maternal morbidity of 20% reported in this study is high compared to

previous study by Vermillion et al²

CONCLUSION

- Our observation concluded that there is no substantial reduction in risk of sepsis and prematurity in the immediate delivery group
- Better outcome in delayed delivery may be explained due to our management protocol of antibiotic and steroid administration
- Expectant management and immediate delivery are potential options in these patients, and each has its own merit and demerits

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