

A study of maternal and foetal outcome in term premature rupture of membrane

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Abstract

Background: Premature rupture of membrane is a common complication of pregnancy which leads to increased maternal complication, neonatal morbidity and mortality. **Aim and Objective:** To study the maternal and foetal outcome in term premature rupture of membrane. **Methodology:** Patients presenting with PROM at term were enrolled. They were interviewed with pre tested questionnaire. Detailed history, clinical examination were done. Maternal and foetal outcome were measured and analysed. **Results and Discussion:** Maternal complications were observed in 16% of patients. Among these 16% patients febrile morbidity was observed in 7%, wound infection was observed in 4%, PPH was observed in 2% patients. Out of total 100 patients 79% newborns had no complication in neonatal period. Foetal complications were observed in 21% fetuses. Asphyxia was the commonest complication (11%) followed by sepsis (5%).

Key Words: prematurity.

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INTRODUCTION

Premature rupture of membrane is defined as rupture of amniotic sac more than one hour before the onset of labour. PROM, which occurs prior to 37 weeks of gestation, defined as preterm PROM as PROM that occurs after 37 weeks gestation defined as term PROM. PROM occurs in approximately 5%–10% of all pregnancies, of which approximately 80% occur at term.¹ Women with PROM usually experience a painless gush of fluid leaking out from the vagina, but sometimes a slow steady leakage occurs. Maternal complications include intra-amniotic infection, which occurs in 13%–60% of women with PROM, placental abruption, and postpartum endometritis.^{2,3} Consequences of PROM also include fetal distress, infection, umbilical cord infection,

neonatal mortality. Present study was conducted to study the maternal and foetal outcome of term

MATERIAL AND METHODS

A prospective study was conducted in OBGY department of a tertiary care centre. Study population was full term patients with PROM (premature rupture of membrane). There were 100 patients presented with PROM at term during the study period of one year.

Inclusion Criteria

1. Singleton pregnancy with gestational age of 37 weeks or more irrespective of gravida
2. Premature rupture of membrane confirmed by per speculum examination
3. Age group 18-40 years

Exclusion Criteria

1. Multiple pregnancy
2. Gestational age less than 37 weeks.
3. Pregnancy with medical complications.
4. Patients not willing to participate in study.
5. Previous caesarean section.

Study was approved by ethical committee of the institute. A valid written consent was taken from patients after explaining the study and treatment to them. A pre tested questionnaire was used to collect the data. Data was collected for age, gravida from personal interview. Detailed clinical examination was done. Gestational age

was confirmed by dates (LMP), clinical examination and ultrasound examination. Patients were treated according to protocol of hospital. Maternal and foetal outcome was noted according to complications observed in mother and foetus. Data was analysed using appropriate statistical methods.

RESULTS

Total 100 patients were studied. Majority of the patients were in the age group of 21-30 years (70%) followed by > 30 years (23%). Majority of the patients belonged to lower socioeconomic class (66%) followed by class III (33%). It indicated PROM is observed in lower socioeconomic status. Most of the patients were primigravida (52%) followed by second gravida (30%). Patients 4th and above gravida were 6%.(table1) Out of total 100 patients 70 were delivered by induction. 23 patients were posted for caesarean section on admission and 7 patients had spontaneous onset of labour. Among all patients 68% were delivered by normal vaginal delivery, 30% patients were delivered by caesarean section and 2 % were delivered by instrumental delivery (foreceps).(fig.1) Maternal complications were observed in 16% of patients, 84% patients were without any complications during and after delivery. Among these 16% patients febrile morbidity was observed in 7%, wound infection was observed in 4%, PPH was observed in 2% patients. Manual removal of placenta was done in one patient. None of the patient developed chorioamnionitis. Maternal mortality was not observed in this study. (table2) Out of total 100 patients 79% newborns had no complication in neonatal period. Foetal complications were observed in 21% foetuses. Asphyxia was the commonest complication(11%) followed by sepsis (5%).(table 3)

Table 1: Distribution of patients according to variables

Sr no	Variable	No of patients	Percentage
1	Age(years)		
2	15-20	07	7%
3	21-30	70	70%
4	>30	23	23%
5	Socioeconomic status		
6	Class I	00	00%
7	Class II	01	01%
8	Class III	33	33%
9	Class IV	58	58%
10	Class v		8%
11	Gravida		
12	Primi	52	52%
13	Second	30	30%
14	Third	12	12%
15	Fourth and above	06	6%

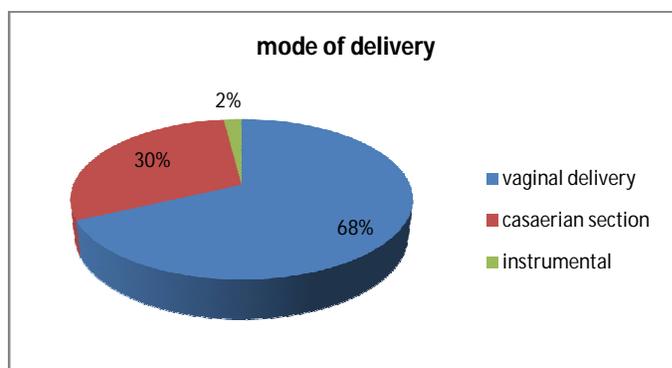


Figure 1: Distribution of patients according to Mode of delivery

Table 2: Distribution of patients according to maternal complication

Sr. No	Maternal complications	No of patients	Percentage
1	PPH	02	2%
2	Fever	07	7%
3	Wound infection	04	4%
4	UTI	02	2%
5	Manual removal of placenta	01	1%
6	chorioamnionitis	00	00%
7	No complications	84	84%

Table 3: Distribution of patients according to foetal complication

Sr no	Risk factors	No of patients	Percentage
1	No complications	79	79%
2	Asphyxia	11	11%
3	Sepsis	05	5%
4	Convulsion	02	2%
5	Congenital anomaly	02	2%
6	Neonatal death	01	1%

DISCUSSION

Majority of the patients were in the age group of 21-30 years (70%) followed by >30 years (23%). comparable with study done by Anjana Devi *et al*⁴ 76.90% and M Gandhi *et al* 77.60%.⁵ Majority of the patients belonged to lower socioeconomic class (66%) followed by class III (33%). It indicated PROM is observed in lower socioeconomic status. Similar results were observed in McGregor J A *et al*.⁶ Most of the patients were primigravida (52%) followed by second gravida (30%). Patients 4th and above gravida were 6%. Primigravida in study by Dars *et al* also had more incidence of PROM.⁷ similar findings were observed in previous studies.^{8,9} Maternal complications were observed in 16% of patients, Among these 16% patients febrile morbidity was observed in 7%, wound infection was observed in 4%. Maternal mortality was not observed. Similar findings were observed in Vilas Kurude *et al*.¹⁰ Out of total 100 patients 79% newborns had no complication in neonatal period. Foetal complications were observed in 21%

foetuses. Asphyxia was the commonest complication(11%) followed by sepsis(5%). Similar results were observed in Anjanadevi *et al*⁴ and Gandhi M *et al*⁵

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