

PERINATAL OUTCOME OF THE INCIDENCES OF PROM AND PPRM – A RETROSPECTIVE STUDY

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ABSTRACT

Objective: To study perinatal morbidity and mortality of the premature rupture of the membranes (PROM) and preterm premature rupture of the membranes (PPROM), and any complications to the mother after delivery in PROM and PPRM cases treated with antibiotics and tocolytics in labour room and also in NICU. **Materials and Methods:** About 100 women with singleton pregnancy diagnosed as PROM and PPRM were grouped into two groups. The first group about 50 cases treated with orally Ampiclox, parentally Cephalosporin and Metronidazole for 5 to 7 days, after confirmation that it is PROM and PPRM. The second group, 50 cases treated with parentally Isoxsuprine followed by orally Isoxsuprine for 7 to 8 days, after confirmation of PROM and PPRM. In all cases in PPRM corticosteroids inj. Dexamethasone 12 hours apart, 2 doses were given to mother. The composite primary outcome included pregnancies complicated by at least one of the following: fetal or infant death, respiratory distress, severe intraventricular hemorrhage, stage 2 or 3 necrotizing enterocolitis, or sepsis within 72 hours of birth. These perinatal morbidities were also evaluated individually and pregnancy prolongation was assessed. **Results:** In first group RDS in PPRM

cases 22% \pm 3.4%. Second group RDS in PPRM is 3.2% \pm 1.4%, so there is little significance between the two groups. In sealing of PROM and PPRM in first group and continuing the progress of labour up to 37 weeks is almost 97% \pm 1.2%. In second group the sealing of PROM and PPRM without antibiotics is 5.8% \pm 2.5%. In first group chorioamnionitis with the symptoms of high fever and tenderness in lower abdomen is 2% \pm 1.8%. In second group it is 2.1% \pm 1.7%. **Discussion and Conclusion:** Intrauterine infection has clearly shown that there is definitely contributing factor for PROM and PPRM. Significantly it contributes to the mortality and morbidity of the foetus and pregnant women. Tocolytic agents in controlling PROM and PPRM are insignificant. We conclude that intra uterine infection is major contributing factor in PROM and PPRM and also producing maternal and foetal complications.

KEYWORDS: PROM and PPRM, Antibiotics, Perinatal morbidity and mortality, Maternal morbidity and mortality.

INTRODUCTION

Intrauterine infection is thought to be one cause of preterm premature rupture of the membranes (PPROM). Antibiotic therapy has been shown to prolong pregnancy, but the effect on infant morbidity has been inconsistent. And also some complications like chorioamnionitis to mother is noticed.^[1] The infection during pregnancy is disastrous to the mother and foetus, if unless treated will end in severe perinatal morbidity and mortality and also PROM and PPRM (complications like chorioamnionitis). Hence the study of PROM and PPRM is taken in our institution by giving antibiotics, the moment PROM and PPRM is diagnosed. It has helped us in most of the cases to seal the leaking only with antibiotics and treat well. It is understood that leaking membrane if more than 18 hours, there will be 100% infection to the foetus. The foetus needs proper antibiotics. It has helped us to reduce the perinatal outcome.^[2]

MATERIAL AND METHODS

The present study was conducted in the labour room on about 100 women with singleton pregnancy with spontaneous, assisted and previous lower segment caesarian section (LSCS), after 28 weeks of pregnancy, who were admitted with history of leaking membrane diagnosed as PROM and PPRM. The most of the patients were moderate in socioeconomic and they were unbooked cases.

Inclusion criteria:

1. Gestational age more than 28 weeks
2. Low risk Singleton pregnancy
3. All paras.
4. Previous LSCS

Exclusion criteria

1. Multiple pregnancies.
2. High risk pregnancy including maternal diseases and congenital anomaly of the babies.

The cases have been divided into two groups. The first group about 50 cases treated with inj. Ampiclox 1g 6th hourly for 5 to 7 days, inj. Cephalosporin 1g 6th hourly for 5 to 7 days, inj. Metronidazole 200mg 8th hourly for 5 to 7 days (it will cover all aerobic and anaerobic bacterias) after confirmation that it is PROM and PPRM. The confirmation was done by speculum examination and litmus test.

The second group, 50 cases treated with inj. Isoxsuprine in 500 ml Ringer Lactate 5 to 6 drops per 24 hours followed by tab. Isoxsuprine thrice daily for 7 to 8 days, after confirmation of PROM and PPRM by speculum examination and litmus test.

The main idea was to prolong the pregnancy till term or up to 37 weeks, to get a mature baby. In all cases in PPRM corticosteroids inj. Dexamethasone 12 hours apart, 2 doses were given to mother to combat respiratory distress syndrome (RDS). It has helped us at the perinatal outcome. The composite primary outcome included pregnancies complicated by at least one of the following: fetal or infant death, respiratory distress, severe intraventricular hemorrhage, stage 2 or 3 necrotizing enterocolitis, or sepsis within 72 hours of birth. These perinatal morbidities were also evaluated individually and pregnancy prolongation was assessed.

RESULTS

The majority of the patients were in the age group of 19 to 34 years. The mean age group for first group was 25 \pm 6.2 years. The mean age for group second group was 27.2 \pm 5.2 years. The difference of age group is not significant. The majority of the patients were para 2 or 3. About 75 % were para 3 in first group, and 25% were para 2 in second group. The mean gestational age in first group was 29 weeks to 32 \pm 1.8 weeks. The mean gestational age in

second group was 34 to 38 weeks \pm 1.2 weeks. In first group RDS in PPROM cases 22% \pm 3.4%. Second group RDS in PPROM is 3.2% \pm 1.4%, so there is little significance between the two groups.

In sealing of PROM and PPROM in first group and continuing the progress of labour upto 37 weeks is almost 97% \pm 1.2%. In second group the sealing of PROM and PPROM without antibiotics is 5.8% \pm 2.5%. It shows clearly that intrauterine infection is the major cause for the PROM and PPROM.

In first group necrotizing enterocolitis is 0.2% \pm 0.1%. In second group necrotizing enterocolitis is 0.3% \pm 0.1%. There is no much significance in both the two groups. Necrotizing enterocolitis is a rare complication.

In first group chorioamnionitis with the symptoms of high fever and tenderness in lower abdomen is 2 % \pm 1.8%. In second group it is 2.1% \pm 1.7%. There is no much significance between the two, The chorioamnionitis was diagnosed with the clinical symptoms and signs only and also high vaginal swabs were sent after delivery for bacterial identification and growth. In first group we were able to continue the pregnancy upto 37 weeks almost in 97.8% \pm 1.2% and getting a healthy baby with very less morbidity or mortality. In second group, continuing pregnancy was only 22.4% \pm 1.2%

DISCUSSION

Intrauterine infection has clearly shown that there is definitely contributing factor for PROM and PPROM. Significantly it contributes to the mortality and morbidity of the foetus and pregnant women.^[3] Tocolytic agents in controlling PROM and PPROM is insignificant.^[4] High vaginal swab sent for culture sensitivity has shown in 30 to 40% cases in first group as growth to E.coli. In second group it is same as first group.^[5]

CONCLUSION

We conclude that intra uterine infection is major contributing factor in PROM and PPROM and also producing maternal and foetal complications. In prom cases baby treated after delivery in NICU-Maternal mortality in first group is 2.89% \pm 2.3%. In second group it is 5.8% \pm 1.2%. Hence it is clearly understood that antibiotics will help in reducing the maternal morbidity and mortality. Tocolytic agents in treating PROM and PPROM are almost

insignificant. It has not helped us in either reducing the leaking pervagina or postponing the pregnancy upto 37 weeks.

List of abbreviations

1. PPRM - preterm premature rupture of the membranes.
2. PROM - premature rupture of the membranes.
3. LSCS - lower segment caesarian section.
4. RDS – respiratory distress syndrome.
5. mg – milligram
6. g – gram
7. inj. - injection

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