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To Compare the Conservative and Aggressive Management of Preterm Prelabor Rupture of Membranes (Pprom) in Indian women at 34-36 Weeks Gestation in Terms of Mode of Delivery and Study the Indication for Caesarean Section

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ABSTRACT

Aim- To compare the conservative and aggressive management of Preterm prelabor rupture of membranes (PPROM) in Indian women at 34-36 weeks gestation in terms of mode of delivery and study the indication for caesarean section.
Materials & Method- 194 pregnant women with PPROM at gestational age 34-36 weeks admitted in labour ward were included in the study conducted from 2009 -2010 in department of Obstetrics & Gynaecology, SMS Medical College, India. Random allocation to conservative & aggressive management group was done by offering Chit Box Method assigning 97 cases in each group.
In conservative management cases were hospitalized & provided bed rest, Daily fetal monitoring, maternal vitals monitoring, Oral tab erythromycin 500 mg t.d.s for 7 days, Daily WBC count and C - reactive protein estimation. Expectant management was abandoned if there was clinical evidence of labour, infection or fetal distress.
In aggressive management induction of labour was done by Tab Misoprostol 25 g orally, at 4-6 hour intervals, for a maximum of 5 doses. Caesarean delivery was performed for standard obstetrical indication and for failed induction.
After delivery neonatal care was provided by neonatologist
Results- Out of 97 cases in aggressive management group majority i.e. 92 (94.85%) cases had latent period 24 hours and in only 5 (5.15%) cases had latent period >24 hours. Similarly out of 97 cases in conservative management group, majority i.e. 86 (88.66%) cases had latent period >24 hours and only 11 (11.34%) cases 24 hours.
Conclusion- In aggressive management group duration of latent period in majority cases was 24 hours and in conservative management group majority cases have latent phase >24 hours.
Thus, in the present study difference in duration of latent period of PPROM in both the groups was highly significant.

KEYWORDS PPROM, delivery, conservative, aggressive, caesarean section

1. INTRODUCTION

Preterm prelabor rupture of fetal membranes (PPROM) is defined as rupture of fetal membranes prior to the onset of labour at less than 37 weeks of gestation. The fetal membranes serve as a barrier to ascending infection. Once the membranes rupture, both the mother and foetus are at risk of infection and of other complications. Most women with PPROM go into spontaneous labour within 24 hours of rupturing their membranes, but 6% of women will not be in spontaneous labour within 96 hours. However earlier in gestation the rupture occurs, the less likely that the onset of labour will be within a specified time period. PPROM occurs in 2 to 3% of all pregnancies and proceeds 1/3 of preterm births and 18 to 20% of perinatal deaths. PPROM is largely a clinical diagnosis characterised by a history of watery vaginal discharge. Prolonged rupture of membrane (PROM) is an important risk factor for chorioamnionitis. Chorioamnionitis is a common complication of pregnancy associated with significant maternal, perinatal, and long-term adverse outcomes. Adverse maternal outcomes include postpartum infections and sepsis while adverse infant outcomes include stillbirth, premature birth, neonatal sepsis, chronic lung disease and brain injury leading to cerebral palsy and other neurodevelopmental disabilities

Conservative versus aggressive management of PPROM is amongst the most controversial issue and still remains a major dilemma to the obstetricians Present study is intended to compare the conservative and aggressive management of PPROM at 34-36 weeks gestation in terms of in terms of mode of delivery and study the indication for caesarean section.

2. MATERIAL AND METHODS

This prospective randomized clinical trial study was conducted in the Department of Obstetrics and Gynaecology, SMS Medical College, Jaipur during the year 2009-2010.194 pregnant women with PPROM at gestational age 34-36 weeks admitted in labour ward were recruited in the present study. Written informed consent by each subject was sought before the study. Random allocation to both the management groups was done by offering Chit Box Method to eligible patients assigning 97 cases to each group. Inclusion Criteria were pregnant women with PPROM at 34-36 weeks of gestation. Exclusion Criteria were cases requiring delivery viz. labour, infection, fetal distress, lethal fetal anomalies / fetal demise, Maternal medical disorders, Non-vertex presentation, Antepartum haemorrhage, absolute indication for caesarean section.

PPROM was confirmed by sterile speculum examination, single digital examination, USG for AFI. Eligible women were assigned to either the conservative management or aggressive management group.

1. Group A (Conservative Management) - 97 cases

2. Group B (Aggressive Management) - 97 cases

Women of both groups were subjected to general physical examination, per abdomen examination

Per speculum / Pervaginal examination, sterile single digital examination to exclude occult cord prolapse and to assess cervical score.

Conservative management consists of Hospitalized bed rest, Daily Fetal Movement count, Intermittent FHS auscultation, NST, Maternal vitals monitoring every 8 hourly, Digital vaginal examination – Prohibited, Oral antibiotics - Tab Erythromycin 500 mg TDS for 7 days, Daily leukocyte count and CRP estimation. Expectant management was abandoned if there is clinical evidence of labour, infection or fetal distress.

In aggressive management group induction of labour was done by Tab Misoprostol 25 µg orally, at 4-6 hour intervals, for a maximum of 5 doses. (ACOG Recommendation) or caesar-

ean delivery was performed for standard obstetrical indication and for failed induction.

After Delivery neonatal care was provided by neonatologist. Neonatal outcome variables of interest e.g. RDS, neonatal sepsis and other neonatal complications were noted.

All the data was entered in Excel Sheet and the data was analyzed statistically using XL Stat and Statcal Software. Quantitative data was summarized in the form of Mean ± SD and the difference in mean value of both the groups were analyzed using Student's 't' test. Qualitative data was summarized in the form of proportions and difference in proportion was analyzed using Chi Square test. All the statistical analysis was done at 95% confidence level and 80% power.

3. RESULTS

Out of 97 cases in aggressive management group majority 75 cases (77.32%) had Normal Vaginal Delivery (NVD) while 22 (22.68%) had Lower segment Caesarean section (LSCS). Similarly out of 97 cases in conservative management group majority i.e. 82 (84.54%) cases had NVD while 15 (15.46%) had LSCS. The value of 2 is 1.636 i.e. P > .05. Hence the mode of delivery was similar in both the group as shown in Table-1.

Out of 97 cases in aggressive management group 22 (22.68%) cases had emerged the indication of LSCS while out of 97 cases in conservative management group 15 (15.46%) had emerged the indication of LSCS as shown in Table-2.

The predominant indication of LSCS in both the group was Non Progress of Labour (NPOL). The Failed Induction (FI) was observed the second major indication of LSCS in 6 (40.00%) cases in conservative management group while Foetal Distress (FD) in 6 (27.27%) cases of aggressive management group as shown in Table-2.

Table – 1
Mode of Delivery

Mode of Delivery	Aggressive Management		Conservative Management	
	No. of Cases	Percentage (%)	No. of Cases	Percentage (%)
NVD	75	77.32	82	84.54
LSCS	22	22.68	15	15.46
Total	97	100.00	97	100.00

$\chi 2$ = 1.636 d.f. = 1 P > .05 NS

Table – 2
Indication of LSCS

Indication of LSCS	Aggressive Management		Conservative Management	
	No. of Cases	Percentage (%)	No. of Cases	Percentage (%)
NPOL	9	40.91	8	53.33
FD	6	27.27	0	0.00
CPD	4	18.18	1	6.67
FI	3	13.64	6	40.00
Total	22	100.00	15	100.00

4. DISCUSSION

Present study shows that the mode of delivery was similar in both the group which is similar to findings of Ladfors L et.al 1 which shows that A low (2–4%) caesarean section rate was recorded and did not differ between the groups.

This is also in accordance to study of ***S Akter*** et.al2 which showed Eighty four percent patient delivered by vaginal route and Fifty four percent delivered within 24 hours of ruptured membrane.

This is contrary to the study of ***S*** Buchanan SLet.al***3 which showed*** Early delivery increased the incidence of caesarean section (RR 1.51, 95% CI 1.08 to 2.10).

The present study showed majority cases in both groups had non progress of labour as indication of caesarean section this is contrary to findings of Brien M Mercer et al4 showed that in induction group 3 (6.5%) had fetal distress and in expectant management group 1 (2.1%) had fetal distress. No significant difference was found.

5. CONCLUSION

Although the LSCS was higher in the aggressive management group as compared to conservative management group but there is no significant association was observed between mode of delivery in aggressive and conservative management group.

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