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Quantifying The Impact of PROM on Preterm Labor Outcomes

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Introduction

Prelabor rupture of membranes (PROM) occurs when the fetal membranes rupture before the onset of labor contractions. This condition can lead to spontaneous labor or, if labor does not begin, increase the risk of complications such as intraamniotic infection and placental abruption, particularly at term. When PROM occurs before 37 weeks gestation, it is classified as preterm PROM (PPROM), posing unique challenges in managing the risk of prematurity alongside potential complications for the mother and child. PROM can arise from various causes, including membrane weakening, intraamniotic pressure, infection, and other stressors—with risk factors like a history of PROM, UTI, Pregnancy Induced Hypertension, Short Cervix, Multiple Gestation.

Aims and objectives

To Determine the Incidence of Prom Among Patients with Preterm Labor Cases Admitting in Basaveshwara Teaching and General Hospital and Sangameshwara Teaching Hospital, Kalaburagi, During The Period 01-January-2024 To 31 December 2024.

Materials and methods

This is a retrospective observational study conducted in Basaveshwara Teaching and General hospital and Sangameshwara teaching hospital, Kalaburagi, between the period of January 2024-December 2024, On 131 patients admitted with preterm labor.

Inclusion Criteria

- All Pregnant Woman Less Than 37 Weeks of Gestation.
- All Preterem Labor Women with Prom.
- Multiple Gestation with Preterm Labor.
- Polyhydraminos.
- High Risk Pregnancy (Htn).
- UTI.
- H/O Fever in Second or Third Trimester.

Exclusion Criteria

- Pregnant Women with More Than 37 Weeks of Gestation.

- Intra Uterine Death.
- Congenital Anomalies.
- Connective Tissuer Disorders.

Table 1: Risk Factors Identified in Pre Term Cases

Risk Factors	Number	Percentage
PROM	26	19.8
Bacterial Vaginosis	5	3.8
Multiple Gestation	7	5.3
Polyhydraminos	5	3.8
PIH	41	31.2
UTI	10	7.6
FEVER IN 2^{ND} OR 3^{RD} TRIMESTER	12	9.1
Others (Anemia, Short Cervix, Congenital Uterine Anomalies, Low Socio Economic Status, Nutritional Deficiencies And Unspecified).	25	19.0

Table 2: Mode of Delivery in PROM Cases

Mode of Delivery	Number	Percentage
Emergency Caesarean Section	18	69.2
Vaginal Delivery	08	30.8

Results

Out of the 131 preterm labour cases, 26 patients (19.8%) were diagnosed with PROM.

Most PROM cases were associated with early rupture of membranes within 24 hours prior to labour onset. A significant proportion of these patients required emergency caesarean sections, and PROM was often linked with additional complications such as fetal distress, maternal hypertensive disorders, and prolonged hospitalization. These findings highlight the burden PROM places on resource utilization and obstetric outcomes in tertiary care.

Conclusion

PROM was identified in nearly one-fifth of all preterm admissions, reinforcing its importance as a clinical Risk factor. Early identification and prompt obstetric intervention are essential to mitigate complications.

The study underscores the need for PROM-specific management protocols to improve maternal and neonatal outcomes in preterm labour scenarios.

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