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MOTHERHOOD IN CRISIS: UNVEILING MATERNAL AND PERINATAL OUTCOMES IN SEPSIS-COMPLICATING PREGNANCIES THROUGH A PROSPECTIVE LENS.

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ABSTRACT **Background:** Maternal sepsis is a leading cause of maternal mortality worldwide. Limited regional studies exist in India addressing its clinical outcomes in pregnancy. **Objective:** To determine maternal and perinatal outcomes in cases of pregnancy complicated by sepsis. **Methods:** A prospective, observational study was conducted on 100 pregnant women diagnosed with sepsis at Government Maternity Hospital, Hanumakonda, from July 2023 to December 2024. Data collected included demographic, clinical, laboratory, management, and outcome variables. **Results:** Sepsis during pregnancy was significantly linked with maternal and perinatal complications. 31% required ICU admission, 13% developed DIC, and 5% experienced mortality. Blood and urine cultures revealed E. coli and Klebsiella pneumoniae as predominant organisms. Cesarean section was the commonest delivery mode (64%). Neonatal complications included NICU admissions (19%) and neonatal mortality (5%). **Conclusion:** Regional data emphasize the importance of early diagnosis, aggressive management, and improved critical care access to reduce sepsis-related adverse outcomes.

KEYWORDS : Maternal sepsis, Pregnancy, Perinatal outcome, ICU, Mortality

INTRODUCTION

Maternal sepsis remains a significant global health challenge, responsible for approximately 11% of maternal deaths. Despite improvements in obstetric care, infection continues to rank among the top causes of maternal mortality, particularly in developing settings like India. Regional studies on sepsis in pregnancy remain limited, creating data gaps that hinder evidence-based policy formulation. This study addresses these gaps by examining clinical outcomes and risk determinants among pregnant women with sepsis admitted at a tertiary maternity center in Telangana.

MATERIALS AND METHODS

Design: Prospective observational study

Setting: Government Maternity Hospital, Hanumakonda

Duration: July 2023–December 2024

Sample Size: 100 pregnant women diagnosed with sepsis

Inclusion Criteria:

Antenatal women ≥28 weeks with upper respiratory tract infection, fever, leaking PV, PROM/PPROM, or UTI.

Exclusion Criteria:

Preexisting HIV or tuberculosis, immunosuppressed individuals, and patients unwilling to consent.

Data Collection:

Structured proforma recorded **demographic** details,**clinica**l presentation, infection **sourc**e, **hematological(**Hemoglobin,total luekocyte count,platelet count) and **biochemical** findings(serum lactate,procalcitonin,C-reactive protein,liver and renal function tests), **culture** reports(blood,urine), **management** details(Antibiotic therapy-time of initiation,type,duration, Need for ICU admission, Surgical interventions), and **outcomes-Materna**l(recovery,lenghth of hospital stay,type of delivery,complications,ICU stay,organ support, death), **Perinata**l (birth weight,APGAR scores, stillbirth, neonatal sepsis, NICU admission,death),.

Statistical Analysis:

SPSS v20 was used; data expressed as mean ± SD and percentages. Associations analyzed using chi-square, sensitivity/specificity, and ROC curves.[amazonaws]

RESULTS

Out of 100 cases, the majority belonged to lower socioeconomic backgrounds (72%) and were of Hindu religion (80%). Mean maternal age was 25.4 ± 3.2 years. Fever and vaginal discharge were the most common presenting complaints.

Maternal complications included DIC (13%), renal failure (5%), and septic shock (11%). ICU care was required in 31% of cases; multiple complications in 10%,overall mortality was 5%.

Positive microbial cultures were found in 46% of cases—E. coli (19%), Klebsiella pneumoniae (11%), Staphylococcus aureus (8%), and Group B Streptococcus (5%).

Cesarean section accounted for 64%, while 36% delivered vaginally. Perinatal complications included preterm birth (28%), NICU admission (19%), and neonatal mortality (5%).

DISCUSSION

The observed maternal morbidity and mortality align with national data emphasizing that maternal sepsis remains an underrecognized but preventable cause of death.Findings highlight significant association between socioeconomic status and sepsis outcomes. Aggressive early management with broad-spectrum antibiotics and ICU intervention was critical in improving prognosis. Strategies focusing on infection prevention, antenatal screening, and institutional delivery can substantially reduce risk.

CONCLUSION

This study demonstrates that maternal sepsis significantly affects both maternal and neonatal morbidity.Missing out large number of undiagnosed cases of sepsis remains a global concern.Biochemical markers like serum Lactate,serum procalcitonin are promising markers for sepsis. Early detection, timely antibiotic therapy, and intensive care management can improve survival rates .If all these facilities are made available at maximum feasible health care centres,sepsis complicating pregnancy will decrease the burden of maternal and perinatal mortality and morbidity. Regional surveillance studies are necessary to guide policy and intervention measures in low-resource settings.

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