

Original research article**An observational study of fetomaternal outcome in fever complicating pregnancy admitted at labor ward****¹Dr. Debariki Ramya,²Dr. B.S.V. Sivaranjani,³Dr. Revu Subhashini,⁴Dr. Nagiri Indrani**¹Junior Resident, Department of Obstetrics and Gynecology, Guntur medical College, Guntur, Andhra Pradesh, India²Associate Professor, Department of Obstetrics and Gynecology, Guntur Medical College, Guntur, Andhra Pradesh, India³Professor, Department of Obstetrics and Gynecology, Guntur Medical College, Guntur, Andhra Pradesh, India⁴Assistant Professor, Department of Obstetrics and Gynecology, Guntur Medical College, Guntur, Andhra Pradesh, India**Corresponding Author:**Dr. B.S.V. Sivaranjani**Abstract**

Background:Maternal hyperthermia is a common clinical problem which increases risk of morbidity and mortality of the mother and fetus. Hence a study was planned to know the effect of fever on maternal and fetal outcome.

Materials and Methods: It is a prospective observational study conducted in tertiary care center in Department of Obstetrics and Gynecology in Government General Hospital, Guntur from January 2024 to May 2024. 42 patients were included in this study.

Inclusion Criteria:All pregnant women with fever in labor were included in this study.

Exclusion Criteria: Rheumatic heart disease, infective endocarditis, chorioamnionitis, post transfusion fever, those who are present with PROM were excluded from study. Data was analysed under the age, parity, gestational age, etiological factor, mode of delivery. Maternal and fetal outcomes.

Results: In our hospital out of 2270 deliveries during the study period 42 pregnancies were identified to be with fever, so the prevalence was found to be 1.8%. Incidence of primigravida is 48% and most of the women present between 20-30 age group (64%). Common cause of fever was urinary tract infections (33%), respiratory tract infection (23%), and dengue (11%). The most common antenatal complication observed was preterm labor (52%), oligohydramnios (19%), premature rupture of membrane (16%). Fetal outcomes like LBW (38%) followed by NICU admissions (16%). The rate of NVD (62%) and LSCS was 38% in study group and the most common indication for LSCS was fetal distress and meconium stained amniotic fluid.

Conclusions: In the present study fever complicating pregnancy is a high risk pregnancy and it has a definite impact on maternal and fetal outcomes. Hence it is suggested that fever during pregnancy needs to be promptly investigated and treated to have a better outcome.

Keywords:PROM, FGR, UTI, fever, meconium

Introduction

Fever is one of the most common clinical problems encountered during pregnancy. It is defined as elevation of body temperature above the normal circadian variations as a result of change in the thermoregulatory centre located in the hypothalamus on two or more occasions 24 hrs apart. It is responsible for adverse outcomes in both mother and fetus due to reduced immune function prone to more infections. Fever is proven to have an adverse effect on the growth and development of a normal fetus^[1]. It mirrors the immune status of the body in response to either exogenous or endogenous toxins^[2]. Consequences of hyperthermia depend on the extent and duration of temperature elevation, timing of exposure in pregnancy and possibility on maternal nutritional status, comorbidities, medications, genetic background and several other factors. Therefore this study was conducted to know the various adverse outcomes in mother and baby.

Materials and Methods

It is a prospective observational study conducted in tertiary care center in Department of Obstetrics and Gynecology in Government General Hospital, Guntur from January 2024 to May 2024. Approval was

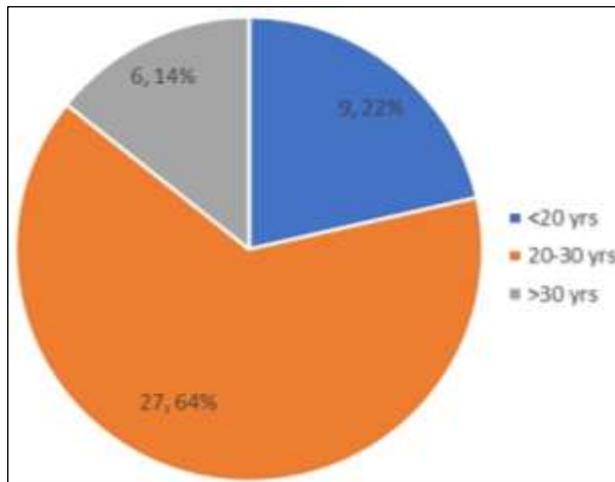
taken from institutional ethical committee and informed consent was taken from all patients.42 patients were included in this study.All pregnant woman with fever in labor were included in this study. Rheumatic heart disease, infective endocarditis, chorioamnionitis, post transfusion fever, PROM were excluded from study. Data was analysed under the following parameters

- Age.
- Parity.
- Gestational age.
- Duration of fever.
- Etiological factor.
- Mode of delivery.
- Maternal and fetal outcomes.

Results

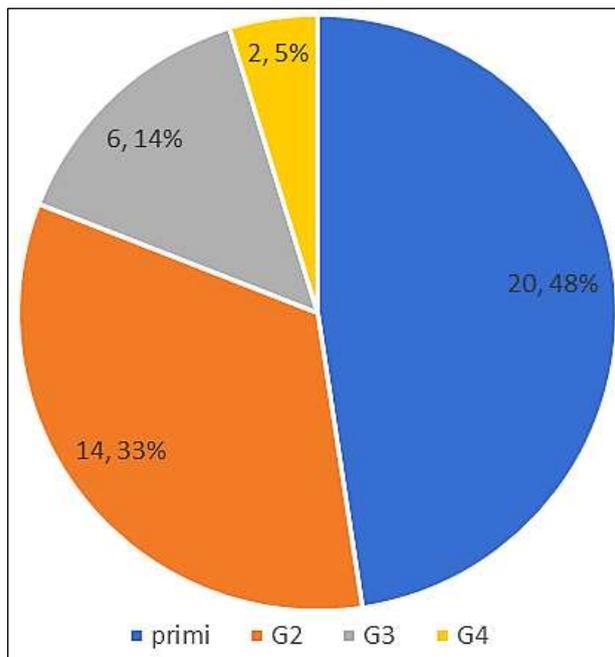
In our hospital out of 2270 deliveries during the study period 42 pregnancies were identified to be with fever so the prevalence was found to be 1.8%.The result of this study follows below

I. Age Distribution of Cases



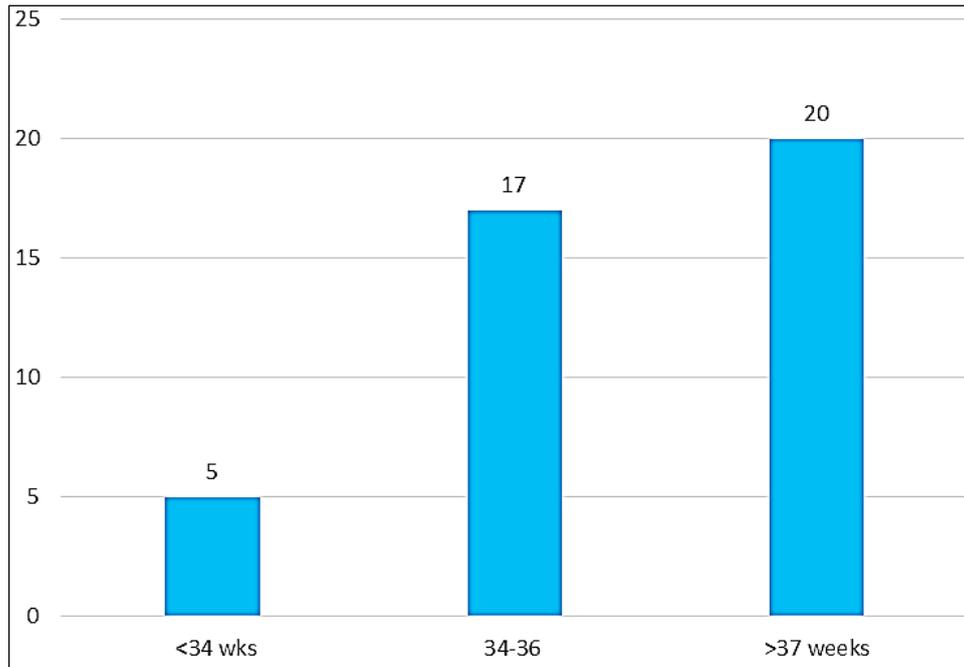
In our study most of woman present between 20-30 yr age group (64%).

II. Distribution of Parity among Cases



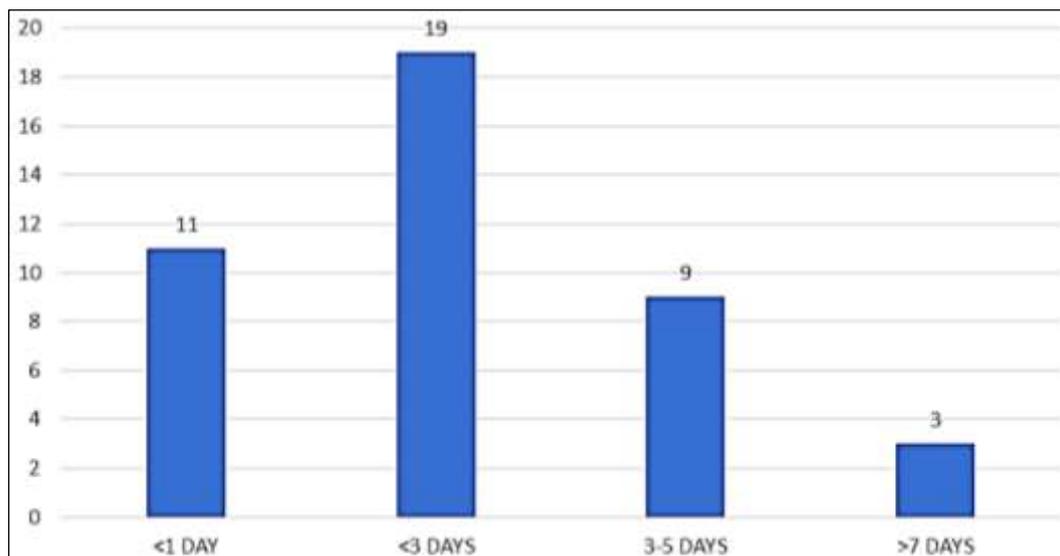
In our study primigravida is 48% followed by G2 (33%).

III. Gestational Age at the Time of Delivery



In our study most of the woman present < 37 weeks of gestational age (52%).

IV. Duration of Fever



Most of the patients present with less than 3 days of duration of fever (45%).

V. Causative Factors

Cause	Number(n)	Percentage(%)
UTI(Urinary tract infections)	14	33
RTI(Respiratory tract infections)	10	23
Dengue	5	11
Typhoid	2	4
Chicken pox	3	7
Gastroenteritis	3	7
Viral fever	3	7
PUO(Pyrexia of unknown origin)	2	4

In our study most common cause of fever was urinary tract infections 33% followed by respiratory tract infections 23%

VI. Maternal Outcomes

Outcome	Number (n)	Percentage (%)
Preterm labor	22	52
Oligohydramnios	8	19
PROM	7	16
Fetal distress	7	16
FGR	4	9
Prolonged labor	2	4
IUD	2	4
Puerperal pyrexia	6	14

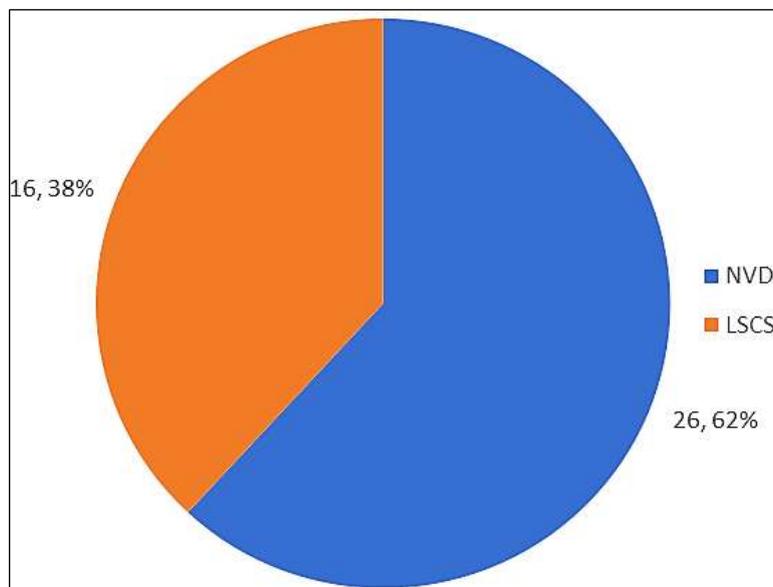
In our study incidence of preterm labour was 52 % other complications like oligohydramnios 19% followed by PROM and fetal distress 16%.

VII. Fetal Outcomes

Fetal outcomes	Number	Percentage(%)
LBW	16	38
NICU Admissions	7	16
Neonatal Sepsis	3	7
Neonatal Jaundice	2	4
Low Apgar	4	9

In our study fetal complications like LBW incidence is 38 % followed by NICU admissions 16%

VIII. Mode of Delivery



Most of the woman undergo Normal vaginal delivery(62%).

Discussion

In our study incidence of fever was high in the primigravida 48%, hence it suggests that women getting pregnant for first time need more education for prevention. This observation correlates with the study conducted by Chambers CD *et al.*, the fever group consisted 38% of primigravida^[3]. The most possible reason for this could be due to awareness amongst the multiparous women towards prone to infection and experience^[4]. The most of the woman come under 20-30 age group. In our study the incidence of preterm labour was 52% which is comparable with Basurko C study^[5]. Cotch and associates observed an increased incidence of preterm labor in neonates, of women with chorioamnionitis (30%)^[6]. In our study the most common cause of fever was urinary tract infections 33% followed by respiratory tract infections 23% which is comparable with Nath G *et al.*, study. Nath G *et al.*, observed that third trimester was associated with highest number of UTI cases^[7].

In a study conducted by chamber and colleagues the incidence of fever due to viral infection was 26%, URTI was 21.8%, and UTI was 15%^[3].

In our study fetal complications like LBW incidence is 38% followed by NICU admissions 16%. Cotch and associates observed that neonates of women with chorioamnionitis had increased incidence of

LBW(40%) which is comparable with present study^[8]. Desai *et al.*, observed maternal anaemia in 38%, low birth weight in 43%, and perinatal mortality in 27% of cases^[9].

Conclusion

In the present study on fever during pregnancy and its maternal and fetal outcomes, fever was associated with a definitive impact on the maternal and fetal outcomes^[10]. In our study preterm labor and LBW most commonly associated with fever complicating pregnancy. Hence proper method of infection prevention and control at homes, communities & hospitals, improvement in health education and awareness should be emphasized. All women should be investigated for fever particularly genitourinary infections, early diagnosis, prompt and adequate treatment with antimicrobials & there by decreasing the incidence of maternal and neonatal comorbidities.

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