



Impact of Placental Malaria Amongst Febrile Pregnant Women

KEYWORDS

PLACENTAL MALARIA ,PERIPHERAL SMEAR,PLACENTAL SMEAR

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ABSTRACT

- **AIM:** To determine the prevalence of malaria in febrile antenatal women. To know the incidence of placental malaria and to know the effect of malaria on maternal and foetal outcome.
- **METHOD:** The study was a cross sectional observational study .The study was conducted at Government General Hospital Kurnool over a period of one year. The study consisted of febrile pregnant women or had history of febrile illness .
- **RESULT:** Among 670 antenatal mothers with fever or had past history of fever the prevalence of malaria was 9.25% and placental malaria 8.35%.Anemia(81.5%) was the frequent comorbidity followed by preeclampsia(29.25%) and jaundice (2%). Perinatal mortality of 37.17%, prematurity (66.07%) poor APGAR score (37.2%) were observed in the neonates.
- **CONCLUSION:** Placental malaria significantly affected maternal and perinatal outcome.

INTRODUCTION

Malaria the most common and most important human parasitic disease. It is preventable and treatable disease but continues to kill disproportionately children and pregnant women. In all malarious areas, infection by any of the main human plasmodial species during pregnancy is detrimental to the mother and the foetus. These potentially fatal infections must be prevented, when they develop they require prompt diagnosis and treatment. The most deleterious effects on the mother are caused by plasmodium falciparum. In high transmission areas, severe anemia, complicated malaria, hemolytic anemia and mortality are the sequelae of it. Malaria imposes a great socioeconomic burden on humanity iaccounting for 85% of global infectious disease. India contributes about 76% of total malaria cases in South East Asia Region. Placental malaria is recognised as a common complication of malaria in pregnancy in endemic areas. The histological examination of placenta is the most sensitive indicator of maternal infection. A variety of adverse perinatal outcomes associated with placental malaria have been described including low birth weight, preterm delivery, IUGR, fetal anemia, congenital malaria and foetal mortality.

MATERIALS AND METHODS

- The study was a cross sectional observational study. The study was conducted in the department of obstetrics and gynaecology govt general hospital Kurnool. The study group included antenatal mothers with fever or had history of fever during the present pregnancy. A total of 10,296 subjects were admitted in labour. Among them 670 subjects were either febrile or had history of febrile illness during present pregnancy. All antenatal women who were not in labour were excluded from this study. The consent was taken from all subjects. Detailed information was collected from enrolled parturient women on socio demographic characteristics, reproductive history including gravidity, history of antimalarial drug usage and use of antimalarial prevention measures. A complete physical examination including the determination of gestational age meas-

urement of axillary temperature with a digital thermometer and other vital signs were performed. Blood investigations carried out were peripheral smear (thick and thin smear), rapid diagnostic test for malaria, placental smear. Placental smear was taken immediately after delivery. Women with positive results or who were anemic were put on appropriate treatment.

OBSERVATION AND RESULTS.

- The no of patients admitted in labour were 10296. Out of these 670 women had fever or past history of fever .The prevalence of fever among the pregnant women was 6.50%.The results were statistically analysed based on age, parity, demography, gestational age. The most affected age group was 20-25 years(78.2%), majority of them were primis (64.62%). Term gestation (83%) women were more affected. Most of them were from rural area (87.16%). 3% of pregnant women were diagnosed to have malaria prior to admission. 88.71% were unbooked cases. 88.72% were not using effective malaria prevention measures. Blood transfusion was given for correction of anemia in 7.8% cases. Anemia was the most frequent comorbidity 81.5%, followed by preeclampsia 29.25% and jaundice (2%). Rapid diagnostic test was positive in 40 patients (5.97%) peripheral smear positivity for malaria was detected in 6.43% subjects. P.falciparum was diagnosed in 75.80% subjects Placental smear positivity for malaria was detected in 8.35% subjects. 5.52% subjects were positive by both peripheral and placental smears. Postpartum complications like PPH 32.20% shock 4.8%, postpartum fever 6.45% and acute pulmonary adema 9.6% were noted. Maternal mortality was higher among smear positive than smear negative subjects.
- The incidence of prematurity (66.07%) was significantly higher among placental smear positive subjects ($P < 0.0001$) as compared to smear negative subjects. Poor 5 min APGAR score was more (37.2%) in smear positive subjects. There was no evidence of congenital malaria among cord blood samples collected. Low

birth weight, perinatal mortality(37-2%) among PS positive were noted.

DISCUSSION

- Placental malaria is an important cause of low birth weight and preterm delivery which in are major determinants of neonatal infant mortality. How ever malaria in pregnancy frequently lacks over clinical signs and its diagnosis is completed by placental parasite sequestration. The prevalence in the present study is comparable to the study conducted by GUINGITA etal, in 2010 and same in cases of mean age group, unbooked cases, rural distribution. Febrile illness in pregnant women should be followed up more vigilantly as it has potential complications as evidenced by increased maternal morbidity and foetal morbidity and mortality.

CONCLUSION:

- The prevalence of malaria in our study is 9.25% The incidence of placental malaria in our study is 8.35% plasmodium falciparum is the most common causative agent associated with placental malaria.Primi gravida from rural background with past history of febrile illness had higher incidence of placental parasitemia.Placental malaria significantly affected maternal and perinatal outcome.In acute febrile illness,peripheral smear and rapid diagnostic test can detect the parasitemia. Effective implementation of strategies for prevention of malaria in pregnancy are to be ensured.In addition efforts must be made to improve awareness about the adverse impact of malaria inpregnancy