

An Appraisal on Effects of Maternal Malaria on Foetus and Neonates

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ABSTRACT Foetal growth is closely associated with several maternal factors. During the antenatal period the foetus is a part of mother. Maternal illness influences the foetus and neonates in number of ways. The present paper discusses the effects of maternal malaria on the health of neonates and foetus. The data have been collected for present study from selected hospitals of Sagar city of Madhya Pradesh, India, randomly. The sample of maternal malaria have also been collected on random basis. In present studies 200 cases have been taken. It has been observed that occurrence of malaria on mothers during pregnancy is directly related to the foetus and it may cause several of adverse effects. Results indicate that Malarial infection during pregnancy place the mother and her child at high risk for potential morbidity and mortality.

INTRODUCTION

The child health is closely related to maternal health. A healthy mother bring forth a healthy baby. Infact mother and child are considered as one unit (Park, 1997). During the antenatal period the foetus obtain all the building materials from the mother (Menon, 1975).

The factors associated with intrauterine growth or retardation are multiple and inter-related to mother, the placenta and the foetus. The maternal factors include malnutrition, severe anemia, heavy physical work during pregnancy, malaria, toxima etc. Alison et al. (1995) stated that acute infectious disease like malaria may damage the foetus. The malaria infections may cause variety of adverse effects i.e. foetal growth retardation, low birth weight embryopathy abortion, still birth etc. Ghai (1990) also reported that sometimes abortion and still birth occurs due to chronic maternal malaria.

Here, an attempt has been made to investigate effects of maternal malaria on the health of neonates and foetus in the population of Sagar district, Madhya Pradesh, India.

MATERIAL AND METHODS

The present investigation have been conducted in Sagar city of Madhya Pradesh. The Sagar city lies in the north - central region of Madhya Pradesh state. It is situated between 23°50' north latitude and 78°45' East latitude. The Sagar city is located at the centre of the country.

The data have been collected from selected hospitals of Sagar city of Madhya Pradesh, India. Two hundred samples have also been collected on random basis.

The anthropometric measurements were taken on 188 new born babies. The measurement method proposed by Weiner and Lourie (1969) have been followed. The assessment of the other health information have been done through pre-tested structured interview schedule.

RESULT AND DISCUSSION

The neonates are most vulnerable to the onslaught of communicable diseases such as malaria. Maternal malaria infection may cause variety of adverse effects i.e. foetal growth retardations, low birth weight, abortion, congenital malformation etc.

The results of inferences or observation made in the study have been presented in the following tables:

Table 1 shows information concerning number of still birth and abortion due to the effect of malaria and anti-malarial drugs. It can be seen from the table that 5.00 per cent mothers reported still birth, while only one per cent mothers reported abortions. The results indicate that still birth (5.00) are comparatively more than abortions (1.00). In this regard approximately 6.00 percent reproductive wastage occurred due to the effect of malaria and anti-malarial drugs.

Table 2 exhibits effects of malaria on the

Table 1: Showing information regarding number of still birth and abortions due to the effect of malaria and anti-malarial drugs. (Sample size 200)

S.No.	Abortion/Still birth	Absolute no.	Percentage
1	Abortion	2	1.00
2	Still Birth	10	5.00
3	Normal live births	188	94.00
	Total	200	100.00

health of neonates. It could be seen from the table that 61.70 per cent mothers reported the ill effect of malaria and anti-malarial drugs on the health of neonates. These observation are purely based on mothers observation and interview of their family members.

Table 2: Showing information regarding effects of malaria and antimalarial drugs on the health of neonates

S.No.	Effect on neonates	Absolute No.	Percentage
1.	Ill effect on the health of neonates	116	61.70
2.	No effect on the health of neonates	72	38.30
	Total	188	100.00

Table 3 shows information regarding type of effect observed on the neonates. It can be observed from the table that 46.80 per cent incidences low birth weight occurred due to the influence of malaria and anti-malarial drugs as compared to anaemia with low birth weight (10.64) and other health problems (4.26). The results indicate that low birth weight is the major health problem than anaemia and the other health problems of neonates.

Table 4 displays information regarding birth weight. It was observed from the table that 57.44 percent of neonates shows low birth weight, as prescribed by W.H.O. (2.5 kg and Indian standard 2.8 kg as reported Ghai, 1991). There are 53.19 per cent neonates who belongs to the cat-

Table 4: Showing information regarding birth weight of neonates

S.No.	Birth weight (in kg)	Absolute No.	Percentage
1	Below 2	8	4.25
2	2 - 2.4	100	53.19
3	2.5 - 2.8	22	11.70
4	2.8 and above	48	25.53
	Total	188	100.00

egory of 2 to 2.4 kg of birth weight. Only 4.25 percent neonates found severe low birth weight i.e. below 2kg of birth weight. The results indicate that only 11.70 per cent exhibits normal range (2.5 to 2.8 kg) of birth weight and 25.53 percent neonates show good standard of birth weight (2.8 kg and above). It can be concluded from the table that low birth weight is the major health problem of the effect of malaria and anti-malarial drugs.

It may be concluded from the present findings and discussion that the incidence of maternal malaria is directly related to health of the neonates. It has been one of the important cause of morbidity and mortality in prenatal period. The low birth weight may be related directly with malaria and anti-malarial drugs along with malnutrition etc. It was observed that 62.77 per cent neonates falls in the category of low birth weight. The effect of malaria and anti-malarial drugs cause still birth (5.00) and abortion (1.00) also it is suggested that awareness should be improved through informal education, health education and different mass - medias can do an excellent work in the prevention of malaria. The preventive measures of malaria, viz., use of mosquito nets, mosquito-repellents etc. are the important precautions to cure the incidences of maternal malaria, so that the frequency of low birth weight neonates, still births and abortion can be minimize. It is well known fact that low birth weight is a very sensitive indicator for the poor health of neonates.

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Table 3: Showing information regarding types of effect on the health of neonates

S.No.	Effect on neonates	Absolute No.	Percentage
1	Anaemia with low birth weight	20	10.64
2	Low birth weight	88	46.80
3	Other effects	8	4.26
4	No effects	72	38.30
	Total	188	100.00