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Congenital Malaria

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This research is under processing, Still we are collecting data and cases.

Introduction and Literature Review. Congenital malaria is defined as the presence of malaria parasites in the RBC of the newborn less than 7 days old (1). Symptoms and signs of congenital malaria include: Fever, RDS , pallor, GIT upset, jaundice and hepatosplenomegally. (2)

The diagnosis of congenital malaria is done by finding a positive 1gM antibodies specific for malaria parasite antigen in the cord blood of a newborn. This investigation is very expensive and not available in many centers where malaria is an endemic disease and even a negative result does not exclude congenital malaria especially if the newborn is premature. Some authors use PCR (polymerase chain reaction) in diagnosing congenital malaria taking cord blood sample for the test. (3)

However congenital malaria is diagnosed when parasitaemia is found in the newborn within 7 days of birth or latter if there is no possibility of postpartum infection by mosquito bite or blood transfusion. (4)

The incidence of congenital malaria worldwide is very low. In endemic areas is found to be less than 1%. The low incidence could be explained by the fact that:

- I. Transmition of malaria to the fetus is prevented in most cases by the major barrier of the placenta.
- II. serologic immunity conferred by maternal antibodies.
- III. poor environment afforded by fetal RBC for plasmodium replication:
 - a. fetal Hb composition .

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b. low free O₂ tension . (5)

Our objectives are:

- I. To assess the magnitude of malaria in the newborns if their mothers have malaria during labour.
- II. To study the effect of congenital malaria in the newborn.

Methodology. This is a prospective hospital based study carried out in Wad Medani Maternity Teaching Hospital. Any pregnant lady during labour is included in the study. Questionnaire will be filled by a doctor who is attending the labour. Blood samples from the mother and cord blood will be taken by the doctor. Blood samples will be investigated for plasmodium falciparum using Gemsa stain by a pathologist. Newborn with a positive cord blood film for plasmodium falciparum and have symptoms and signs (congenital malaria disease) will be given chlorquine syrup. Newborn with positive cord blood film for plasmodium falciparum but without symptom and sign (congenital malaria infection) will be followed for 7 days. If developed symptom and sign within this period will given chlorquine syrup.

Results.

- 64 cases were studied. 40 from rural and 20 urban area.
- 25% of them had malaria during labour.
- Non of their babies had malaria parasite in cord blood
- Non of them (25%) of newborns) had symptoms or signs of congenital malaria.

However we are still collecting data and cases for this study and we are trying to use the PCR to strengthen our study.

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References.

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