

## Congenital Malaria in Warri, Nigeria

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**A descriptive study of the prevalence of congenital malaria in Warri, a Malaria endemic region of Nigeria was done by performing a thick blood film on the cord blood of consecutive live born babies at a Central Hospital, Warri and Rapha Specialist Children & General clinic, Effurun both in Delta state of Nigeria was done. Out of 50 deliveries, 29 of the babies had their cord or peripheral venous blood taken within the first seven days of life positive of malaria parasite by thick film representing 58%. This is quite significantly high enough to justify the routine screening of all babies in malaria endemic regions for malaria parasite by thick film whenever such babies are been screened for presumed neonatal sepsis.**

**Key words:** Congenital, Malaria, Plasmodium(P), P.falciparum, P.malariae, P.ovale, P.vivax, Parasitaemia.

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Congenital malaria is confirmed by finding of malaria parasitaemia in the cord blood or peripheral blood smear in a neonate within the first seven days of life.

Congenital malaria may occur following the inoculation of plasmodium parasite into the blood of a pregnant woman when a mosquito bites her or following blood transfusion of plasmodium infested blood within seven days to parturition. Four species of the plasmodium parasite are well known viz: Plasmodium (P) falciparum, P. vivax, P. ovale and P. malariae.<sup>1</sup> Factors responsible for the transplacental transmission of malaria are not fully understood but placental damage, either overt or covert has been suggested as a probable means<sup>2</sup>

It is commonly documented that in malaria endemic regions, congenital malaria incident is low<sup>3,4,5</sup>. Some Nigeria workers have reported incidences of congenital malaria.

Symptomatic congenital malaria in the first three weeks of life is believed to be rare due to several protective mechanisms in the neonate which include high anti malarial immunoglobulins transplacentally transferred to the foetus, a high HbF which does not encourage growth of the parasite and breast milk being low in para-aminobenzoic acid which is required for the growth and development of the parasite<sup>6</sup>

No clinical features are pathognomonic of congenital malaria as they share common symptoms with neonatal sepsis. Common symptoms include fever, poor suck, jaundice and splenomegaly. Routine screening for sepsis by most hospitals in Nigeria often does not include blood smear for malaria parasitaemia

It is therefore important to determine what is the prevalence of congenital malaria in an endemic malaria region.

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### Methodology

A cord blood and peripheral blood was collected from the neonates at birth or within the first seven days of life a thick blood film is performed on them to identify the presence of plasmodium in the blood. This was done for all consecutive consenting deliveries in Central Hospital, Warri and Rapha Specialist Children & General clinic, Effurun,

### RESULTS AND DISCUSSION

The burden of congenital malaria need to be determined as the clinical features of congenital malaria are indistinguishable from neonatal sepsis.

This study was borne out of the observation that certain neonates in the malaria endemic region of Warri in Nigeria who did not respond to the usual management for sepsis but

Total number of Neonates studied	Number positive of Malaria Parasite	% positive of Malaria parasite
50	29	58%

who had their blood film examined for malaria parasite responded dramatically to antimalarials.

The result of 58% been positive for malaria parasite would appear to justify routine inclusion of a thick blood film for malaria parasite whenever early neonatal sepsis is suspected in malaria endemic areas

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