A Rare Encounter: Diagnosing and Managing Congenital Malaria in a Neonate

Sir,

Congenital malaria is the least known manifestation of malaria and a neglected area of research. It occurs in <5% of the affected pregnancies.[1] This rare disease should be included in the differential diagnosis of neonates presenting with sepsis, unexplained fever, haemolytic anaemia, jaundice, or haepatosplenomegaly in malaria-endemic areas.[2] Early diagnosis is important for prompt treatment and prevention of adverse outcomes.

A five-day neonate presented to the neonatal intensive care unit (NICU) with complaints of fever, reluctance to feed, and loose stools for two days.

Upon examination, she was irritable, febrile, and jaundiced, with a heart rate of 144 beats/min, respiratory rate of 56 breaths/min, and oxygen saturation of 95% on room air. Abdominal examination revealed a firm spleen palpable 3.5 cm below the left coastal margin. The rest of the systemic examination was unremarkable. Baseline investigations revealed haemoglobin (Hb) of 7.7 g/dl, normal leucocyte count, and a platelet count of 40,000/µL. Serum total bilirubin level was 24 µmol/L with indirect hyperbilirubinaemia.

The mother visited interior Sindh in the 7th month of gestation, where she developed a fever with chills and body aches but received no treatment. On 2nd day of admission, a lumbar puncture was performed. Peripheral smears for malarial parasites (MP) were also sent, which revealed rings and trophozoites of Plasmodium vivax confirming a diagnosis of congenital malaria. Treatment was initiated with oral chloroquine. On 4th day of admission, the complete blood count showed improvement, with Hb of 13.9 g/dL and a platelet count of 55,000/µL. The neonate remained afebrile, tolerated oral feed, and was discharged on the 5th day of admission, with instructions for follow-up. On follow-up in the outpatient department (OPD), the neonate was afebrile and active and the repeat MP slides were negative.

Congenital malaria is defined as a positive cord or peripheral blood smear for a MP in a 24-hour to 7-day newborn.[1] It is an uncommon entity with the majority of cases being asymptomatic and approximately 7-10% of cases are symptomatic.[3]

The management of congenital malaria is challenging as treatment with antimalarial drugs in neonates has no specific guidelines. One study indicated that chloroquine administered at a dose of 10 mg/kg body weight at the base, followed by 5 mg/kg after six hours and 5 mg/kg once a day for the next two days is the accepted regimen for treating congenital malaria. Since the tissue phase of malarial trophozoites is not present in neonates, primaquine is not required before six weeks of birth.[4] WHO provides treatment guidelines for children weighing over 5 kg and lacks specific treatment guidelines for neonates with congenital malaria infected with Plasmodium vivax.[5]

In conclusion, congenital malaria is a serious condition in neonates with non-specific clinical manifestations, and delayed diagnosis can lead to increased neonatal morbidity and mortality. Prompt screening, accurate diagnosis, and immediate treatment are crucial for reducing the burden of disease and associated complications.

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Arshad Khushdil, Zara Irfan and Ayesha Junaid

Department of Paediatrics, National University of Medical Sciences / PEMH, Rawalpindi, Pakistan

Correspondence to: Dr. Arshad Khushdil, Department of Paediatrics, National University of Medical Sciences / PEMH, Rawalpindi, Pakistan

E-mail: drarshad104589@yahoo.com

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