Volume : 3 | Issue : 4 | April 2014 • ISSN No 2277 - 8179

Research Paper

Case Report: Congenital Malaria in Preterm Mimcking as Neonatal Sepsis

Medical Science

KEYWORDS : Congenital malaria, Neonatal sepsis, Cholestatic jaundice

Shrishailesh.D.M

114, Yalladri, Royal shelters, Devarachikkanhalli, Bannerughatta road, Bangalore 560076

ABSTRACT

Congenital malaria is a rare entity in endemic and non-endemic area. Any infant presenting with sepsis like picture on 10 to 20 days of life possibility of congenital malaria has to be considered.

Introduction:
Infants acquire malaria by transplacental transfer of parasitized maternal erythrocytes. Congenital malaria has been considered to be very rare, even in malaria-endemic areas. Placental barrier and maternal antibodies may protect the fetus. More than 200 million people are annually infected with malaria world-wide. In comparison, congenital malaria occurs very infrequently. Both Plasmodium falciparum and Plasmodium vivax infections can cause adverse pregnancy outcomes, including maternal anemia, low birth weight due to preterm delivery and fetal growth restriction [1]. Pregnant women are more susceptible to malaria as compared to non-pregnant, especially in first and second pregnancy [2].

The most common clinical features of congenital malaria are fever, anemia and splenomegaly. Other signs and symptoms include hepatosplenomegaly, jaundice, regurgitation, loose stools, and poor feeding.

Case report:
An 18days old preterm baby born to 32years mother, referred to neonatal intensive care, Akshay hospital Bangalore with history of lethargy and persistent jaundice but no fever. Baby developed jaundice on day 3 of life and from last 3days baby was lethargic with poor feeding. Before three days of illness baby was feeding well and activity was normal according to mother. Cause of preterm delivery was preterm labour. On examination baby was IUGR with pallor, petechial rashes, icterus and hepatosplenomegaly. Respiratory and cardiac systems were normal. Initial possibility of cholestatic jaundice of newborn was considered. Laboratory parameters were Hb 10.7%, WBC 26000, Platelets 16000, peripheral picture showed hemolytic picture, Total bilirubin 15.6 (Indirect 10.4), SOGT 90, SGPT 102, ALP 654, TORCH work up negative and CRP was 26.9. After 48 hours of admission baby hemoglobin dropped to 4.0 and peripheral smear revealed hemolytic picture and haemoparasites were noted within red blood cells. A thick and thin blood film revealed P. vivax trophozoites and few schizonts, with a parasitaemia of 3%. The diagnosis of vivax malaria was eventually confirmed by polymerase chain reaction (PCR). The infant was administered with oral chloroquine 10mg/ kg the first and the second day followed by 5 mg/kg the third day. Four days after treatment peripheral parasitaemia was completely cleared, white blood cell count decreased to 11000 and the CRP decreased to 3mg/dl. Other causes of hemolytic anemia in infants were ruled out and there was no ABO/RH incompatibility in parents and G6PD was normal.

A history revealed that the mother had febrile illness during 8th month of pregnancy. Although exact history of intake of antimalarials was not clear. During the present episode she had no fever, but her peripheral smear showed presence of scanty P. vivax trophozoites suggesting the possibility of congenital malaria in the infant. The baby was discharged on day six with normal red and white blood cell counts, hemoglobin value, platelets count, biochemical profile, and normal CRP. No recrudescence was seen after six months of follow up.

Discussion:
Malaria in children differs from that in adults in terms of varied manifestation and higher mortality. The newborn can present with fever, irritability, feeding problems, hepatosplenomegaly, anemia, and jaundice [3, 4]. Although fever is a cardinal symptom of malaria in adults, however in congenital malaria it can be absent. This has been attributed to transplacentally acquired antibodies (IgG), which gives transient protection to infant and thus manifestations are mild. Although IgG and IgM antimalarial antibodies can be detected in maternal blood, only IgG is normally found in the infant's blood. In the present case, although fever was not present, other severe manifestations can be seen due to failure of maternal IgG transfer to the infant. This case shows that the diagnosis of congenital malaria should be considered as an important differential diagnosis of cholestasis of newborn and in neonatal sepsis. The clinical features of neonatal malaria include anemia (77%), fever (74%), liver and spleen enlargement (68%), poor feeding/ lethargy/ irritability and jaundice [5, 6]. Severe thrombocytopenia without bleeding is also a frequently reported feature of congenital malaria [7, 8, 9]. The treatment of congenital vivax malaria requires a blood schizonticide, like chloroquine, whereas primaquine is unnecessary as in congenital malaria there is no hepatic stage of the parasite.

Conclusion:
Being congenital malaria as rare disorder whenever preterm baby with IUGR presents at day 10 to day 20 of life with septic features with severe anemia and hepatosplenomegaly possibility of congenital malaria has to be considered.

REFERENCE

1. Nosten F, McGready R, Simpson JA, Thwai KL, Balkan S, Cho Thei, Hkirijaroen L, Looareesuwan S, White NJ: Effects of Plasmodium vivax malaria in pregnancy. Lancet 1999, 354:546-549. | | 2. Rogerson SJ, Hvjjd L, Duffy PE, Leke RFG, Taylor D: Malaria in pregnancy: pathogenesis and immunity. Lancet 2007, 7:105-116. | 3. Krause PJ. Malaria (Plasmodium). In: Berhman RE, Kliegman RM, Jenson HB (eds). Nelson Textbook of Pediatrics (16th ed). Philadelphia: WB Saunders Company; 2000: 974-978. | | 4. Fischer PR. Malaria and newborns. J Trop Pediatrics 2003; 49: 132-134. | | 5. Krause PJ: Malaria (Plasmodium). Nelson Textbook of pediatrics WB Saunders Company. Philadelphia, 16 2000, 974-978. | | 6. Fischer PR: Malaria and newborns. J Trop Pediatrics 2003, 49:132-134. | | 7. Voittier G, Arsac M, Farnoux C, Mariani-Kurdjian P, Baud O, Aujard Y: Congenital malaria in neonates: two case report and review of literature. Paediatrica 2008, 97:500-512. | | 8. Lesko CR, Arguin PM, Newman RD: Congenital malaria in the United States. Arch Pediatr Adolesc Med 2007, 161:1062-1067. | | 9. Baspinar O, Bayraktaroglu Z, Karsligil T, Bayram A, Coscun Y: A rare case of anemia and thrombocytopenia in a newborn: congenital malaria. Turk Journ Pediatr 2006, 48:63-658. |