

Research Article

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Congenital Malaria Mimicking Sepsis - A Case Report from Malaria Endemic Area in Central India

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Abstract

Malaria is a serious health problem in the tropical countries. Pregnant women are more susceptible malaria than non-pregnant women, but however its prevalence is very less in both endemic and non-endemic areas. Congenital malaria (CM) is defined as malaria acquired by the foetus or new born from the mother, either in utero or at parturition. CM in tropical areas, where it is endemic is an important cause of abortions, miscarriages, stillbirths, premature births, intrauterine growth retardation, and neonatal deaths. Congenital malaria is caused by 4 different species of plasmodium; *P. Vivax*, *P. Falciparum*, *P. Malaria* and *P.Ovale*. In a recent review done by Lesko et al. [1] in 2007, the predominant infecting species remained *P.Vivax* (82%) though all the other species were represented. The exact epidemiological details are not available in India. This is a case of Congenital Malaria in malaria endemic area whose clinical presentation mimics sepsis and responded to treatment with IV Artesunate.

Keywords: Congenital; Malaria; Sepsis; Endemic

Introduction

Malaria is a serious health problem in the tropical countries. Pregnant women are more susceptible malaria than non-pregnant women, but its prevalence is very less in both endemic and non-endemic areas [2]. Congenital malaria (CM) is defined as malaria acquired by the foetus or new born from the mother, either in utero or at parturition [3]. CM in tropical areas, where it is endemic is an important cause of abortions, miscarriages, stillbirths, premature births, intrauterine growth retardation, and neonatal deaths [4]. Congenital malaria is caused by 4 different species of plasmodium; *P. vivax*, *P. falciparum*, *P. malaria* and *P. ovale*. In a recent review done by Lesko et al. [1], the predominant infecting species remained *P. vivax* (82%) though all the other species were represented [1]. The exact epidemiological data is absent in the Indian scenario, but a study done in United States revealed only 3 infants had CM among the 4.1 million deliveries which happened in 2004 [5]. CM is usually present in those infant whose mother is infected with malaria and usually presented between 10 days to 30 day of life. The spontaneous clearance of parasitemia occurred in 62% of infants before day 2, whereas 33% were symptomatic within 3 days of birth [1].

Case Report

A 20 day old male neonate was born to a 25 year old primigravida mother at term gestation by normal vaginal delivery hailing from Kahajuraho in Uttar Pradesh. The antenatal and the peripartum period were uneventful. The child presented with h/o fever for 3 days, poor feeding for 3 days, jaundice for 3 days and abdominal distension for 1 day. On examination the neonate was average sized, lethargic, jaundice present up to the leg. Per abdomen examination, it was distended with visible veins, liver was palpable 3 cm under the right costal margin, spleen tipped and bowel sounds were sluggish. Other systems were within the normal limits. Investigations revealed Hb - 11.7g/dl, TLC - 7100/cmm, Platelets - 55,000/cmm, CRP - 40.1mg/L and blood film showed mature trophozoite of Plasmodium Vivax with Parasitic Index of 25%. The liver function tests T.Bilirubin -10.6, D.Bilirubin-1.9mg/dl and USG abdomen were normal but the C - reactive protein was 40.1ng/L. A provisional diagnosis of septicaemia was made and the neonate was started on IV antibiotics, IV Fluids and other supportive care. IV Artesunate was added on second day of hospitalisation in view of the peripheral film report. The general condition of the neonate gradually improved and feeds were started on the third day of hospitalisation. A repeat counts showed improvement in the platelet counts. The general condition improved of the neonate improved and he was discharged after one week of antimicrobial treatment.

Discussion

The clinical features of congenital malaria are nonspecific and it resembles those of bacteria or viral sepsis and other congenital infections. Fever is the most common presentation but the classical paroxysm of fever would be absent. Other features include anaemia, splenomegaly, thrombocytopenia, hepato-splenomegaly, jaundice etc [5]. Our case presented with history of fever, poor feeding, abdominal distention, anaemia, jaundice and thrombocytopenia. This probably is a case of mixed infection of congenital malaria with septicaemia. It is very difficult to comment which infection is predominant since most of the patients receive prior antibiotics either oral or intravenous before the investigations being sent. A provisional diagnosis of septicaemia was made and was started in IV antibiotics. Peripheral smear on day 2 of hospitalisation showed *P. vivax* with Parasitic Index of 25%. The patient was started on Inj Artesunate and we kept him NPO as there were features of ileus and sepsis. The parasitic index was very high level in this case but he responded to IV Artesunate well. The clinician should be very suspicious of CM for those mothers who had travelled to malaria-endemic areas and had fever in the antenatal period. A neonatologist should always keep the differential diagnosis of congenital malaria in a child presented with features of sepsis in neonates born in a malarial endemic area

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