

*Case Report***Post Partum Cerebral Malaria: A Case Report**

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ABSTRACT

Cerebral malaria is an uncommon complication of malaria in pregnancy in our environment. The overall incidence in Nigeria is unknown however the paucity of case report may be an underestimation. It is sometime difficult to distinguish from eclampsia. However, eclampsia is unlikely to present with hyperpyrexia though not invariable, repeated convulsions with coma in the intervals between the absence of fits if there is no associated cerebrovascular accident. We present a case of post-partum cerebral malaria in a primipara, which responded promptly to artemether.

Key Words: Cerebral malaria, Malaria in Pregnancy, Complicated malaria, Post-partum.

INTRODUCTION

Malaria and pregnancy are mutually aggravating conditions. The physiological changes of pregnancy and pathological changes due to malaria have a synergistic effect on the course of each other; thus making management more challenging for the mother, the child and the treating physician. ^[1] Malaria manifests in very many ways and in its complicated form may terminate in death of the victim. One of such complications is cerebral malaria. ^[2]

Malaria is responsible for 63% of all clinic attendances in Nigeria and associated with 11% of all maternal death and 70.5% of morbidity in pregnant women. ^[2] Most of these resulted from complicated form of the malaria.

Cerebral malaria is a rapidly developing encephalopathy with heterogeneous pathophysiology. ^[3] According to the world Health Organization (WHO) definition; it is an unarousable coma with peripheral asexual P. falciparum parasitemia and no other identified causes of an encephalopathy. ^[2,4]

We report a case of cerebral malaria in a primipara in the immediate postpartum in Owo, Nigeria and a review of literature on the subject to raise the awareness of obstetricians and clinicians generally of this diagnosis often forgotten.

CASE REPORT

Mrs. EO is a 27 year old trader Gravida 2 Para 1⁺⁰ (alive) who was 38

weeks gestational age referred from a Primary health care facility in Owo to Federal medical centre Owo with 14 hours history of labour pains and 3 hours of drainage of clear liquor. One week prior to the onset of labour, she had a febrile illness which was managed by self medications mainly antipyretics. She was a primipara and the initial confinement was 5 years earlier for a different man which was spontaneous vaginal delivery and was essentially uneventful. Gynecological history was not significant. No history of chronic medical conditions. She is now married to a 40 years old man in a monogamous setting. She neither smoke cigarette nor drink alcohol. No known drugs allergy.

Examination revealed afebrile but dehydrated young woman with no pedal edema. Admitting temperature was 37.0°C, pulse rate 102bpm and blood pressure 130/80mmHg. Urinalysis was negative for protein and glucose. A singleton fetus in longitudinal lie engaged head presenting and having adequate uterine contraction. Estimated fetal weight was 3.5kg. Cervix was fully effaced, OS 5cm dilated but with malpresentation, liquor was meconium stained. She was counseled for an abdominal delivery and had a live male neonate with mild birth asphyxia.

Two hours post –operation, general condition was stable except temperature of 37.8°C. At 12 hours post operation she was commenced on graded oral sips but was noticed to be restless complaining of headache and temperature was 38.0°C at 16hours post operation. Urgent urinalysis was negative for protein and glucose, complete blood count revealed packed cell volume of 36% normal platelet and white blood cell with differential essentially normal. Blood pressure was 120/80mmHg.

However, she had a tonic clonic convulsion which lasted about 2mins and

was aborted with 5mg of diazepam. Magnesium sulphate was commenced immediately using Zuspan regimen.^[5, 6] Post fit blood pressure 150/90 mmHg and temperature 39.0°C but urinalysis repeated remains negative for both protein and glucose, electrolytes, urea and creatinine were normal. She however lapsed into an unarousable coma which lasted about 20hours with MgSO₄ infusion still on-going then blood smear for malaria parasites (Giemsa Stained⁷) was done which revealed 16 parasites/1hpf. She was commenced on parenteral artemether 160mg stat then 80mg 12hourly for next 3days. She regained consciousness 6hours after the first dose of artemether. MgSO₄ infusion was discontinued after the 24 hours and she completed her course of parenteral artemether. A repeat blood film for malaria parasites was negative. Mrs. EO was discharged home having fully recovered clinically on post-operation day six.

DISCUSSION

Cerebral malaria is one of the complications associated with severe *P. falciparum* malaria.^[4-8] It is characterized by unarousable coma with peripheral asexual *P. falciparum* parasitemia in the absence of any other cause of encephalopathy.^[4] Cerebral malaria may be the most common non-traumatic encephalopathy in the world, pathogenesis is heterogeneous and the neurological complications are often part of a multisystemic dysfunction.^[8] Cerebral malaria in pregnancy has been reported in an undergraduate primigravida in Ibadan.^[9] Our patient in question had a febrile illness probably malaria but was not treated a week prior to onset of labour and this history was not regarded as important. Within the first 24 hours post surgery, patient was febrile but was thought to be post operative stress response. The convulsion she had was tonic-

clonic in nature but considering her pregnancy state, she was immediately treated as an eclamptic fit being the most prominent differential diagnosis. Although a very high blood pressure and massive albuminuria is common in eclampsia occasionally eclamptic fits occur at relatively low blood pressure level. [2,5,6] Antimalaria drugs however, remain the only intervention that unequivocally affects outcome. [8] Artemisinin derivatives have made an impact on the treatment but other drugs may be required. [8,10] Our patient was commenced on artemether and promptly regained consciousness and clinically improved.

CONCLUSION

In conclusion, cerebral malaria in pregnancy is very uncommon in immune pregnant woman, [2] however it is important for all physicians who manage any pregnant woman with convulsion lapsing into coma to be mindful of this diagnosis “cerebral malaria” which is often forgotten.

Declarations

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Conflict of interest: None

Consent: Written informed consent was obtained from the patient for publication of this case report. A copy of the written consent is available for review.

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