

Letter to the Editor

Spontaneous splenic rupture in a pregnant Sudanese woman with falciparum malaria: a case report

Sir

In Sudan, 13.7% of women attending antenatal care are reported to have *Plasmodium falciparum* malaria, irrespective of age or parity, some of them severe cases [1]. Malaria can have serious adverse effects on pregnancy, e.g. low birth weight and maternal anaemia, and is the leading cause of maternal and perinatal mortality in Sudan [2-4].

Splenic rupture can occur with any degree of trauma to a normal spleen or a minimal trauma to a diseased spleen. To be labelled as spontaneous, the splenic rupture should not be associated with any degree of trauma or evidence of gross pathology at the time of exploration [5]. A high index of suspicion of splenic rupture is imperative because delay in diagnosis may lead to catastrophic consequences. Therefore, preoperative diagnosis and rapid intervention are important.

A 29-year-old pregnant Sudanese woman presented to New Halfa Teaching Hospital, Sudan with a history of fever, headache, backache, sweating, nausea and abdominal pain for 18 hours. She was in her 3rd pregnancy (parity 2) and the 26th week of gestation. There was no history of trauma, her pulse was 110/min, blood pressure was 100/60 mmHg, she was pale and her temperature was 38.7 °C.

A Giemsa-stained peripheral blood film confirmed the provisional diagnosis of falciparum malaria. The haemoglobin level was 6.8 g/dL and the total white blood

cell count was 6800 cells/ μ L. The presence of distended, tender abdomen with absent bowel sounds, plus her pregnancy, necessitated urgent ultrasound that revealed a single viable baby with upper segment placenta and 22 cm splenomegaly and free fluid in the peritoneal cavity.

Laparotomy revealed an enlarged spleen with several tears. An emergency splenectomy was performed and no other abnormalities were seen. The patient received 2 L of blood and quinine 30 mg/kg daily for 7 days and 1 g of ceftriaxone intravenously. She was discharged after 8 days in good health and seen every 15 days in the antenatal clinic until delivery. She delivered vaginally at 39 weeks gestational age and the outcome was a male with birth weight 2.8 kg.

This patient presented with large ruptured spleen that was most likely due to the falciparum malaria. Spontaneous rupture of the spleen is an extremely rare complication of falciparum malaria [6].

In the New Halfa area of eastern Sudan it has been previously documented that *P. falciparum* is the predominant malaria species in the area, which is characterized by high antimalarial drug resistance [7]. Thus malaria should be remembered among the causes and differential diagnosis of splenic rupture. These other causes include: haematological disorders (e.g. haemophilia, haemolytic anaemia), metabolic disorders (e.g. amyloidosis, Wilson disease), drug-induced disorders (e.g. due to heparin and warfarin), vomiting, uraemia, systemic lupus erythematosis and infectious mononucleosis which is considered the most common cause of spontaneous rupture of the spleen [8].

Emergency splenectomy was performed for this patient and this is the standard management. However, a more conserva-

tive approach in selected cases has been reported [9].

References

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I. Adam

Department of Obstetrics and Gynaecology, Faculty of Medicine University of Khartoum, and Academy of Medical Sciences and Technology, Khartoum, Sudan (Correspondence to I. Adam: ishagadam@hotmail.com).

E.S. Adam

New Halfa Teaching Hospital, New Halfa, Sudan.