Changing pattern of severe malaria

Sir,

About 3.4 billion people are at risk of malaria globally, and of these, 1.2 billion are at high risk. In 2012 there were 207 million cases of malaria reported globally, with an estimated 627,000 deaths, about 90% of which occurred in sub-Saharan Africa.[1] However, in most African countries with an endemic transmission pattern, including Nigeria, cases of severe forms of malaria are rare in the adult population. This is due to protective immunity acquired at a younger age. A few cases of severe malaria have indeed been documented in the adult population,[2,3] which were mostly cerebral malaria in the southern part of this country.[4] Severe malarial anemia is mostly seen in younger children,[5] therefore, its occurrence in an adolescent is worth reporting.

A 12-year-old girl presented with fever associated with headache and body pains for 5 days. She had no complaints of vomiting, diarrhea, or blood loss from any site; she had not attained menarche and had no family history of bleeding diathesis. The girl did not have sickle-cell anemia (genotype AA) and had not traveled out of the country. Additionally, she was not on any routine malaria chemoprophylaxis and did not use insecticide-treated mosquito nets. Further evaluation showed that she was pale, tachypneic, tachycardic, and had heart failure caused by anemia. The blood culture, urinalysis, and urine culture were not remarkable, but she tested positive for malarial parasites, with thin film showing *Plasmodium falciparum*. The full blood count (packed cell volume 13%) revealed a normocytic, normochromic anemia. She was also HIV-negative, and stool microscopy was unremarkable. For treatment she received blood transfusion and parenteral antimalarial therapy. She improved and was subsequently discharged.

Severe malarial anemia is commoner in children, especially in those aged less than 3 years; it is characterized by the extensive hemolysis of parasitized and unparasitized young and old red blood cells, which results in anemia. However, its occurrence in older children is a rarity in a malaria-endemic area. The predominant manifestations of severe malaria in adults in an unstable malaria transmission area are cerebral malaria, convulsion, hypoglycemia, and hypotension. However, Abdallah *et al*. in Sudan[6] reported about 36.2% of adults with severe malarial anemia; similarly, Akhwale *et al*.[7] in Kenya reported severe malarial anemia in 20% of women of childbearing age. Though nutritional anemia and parasitic infestation, such as hookworm, may be contributory, the indexed case had normocytic, normochromic anemia. Thus, malarial anemia may not be a rarity after all.

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