Letters to the Editor

**Malaria and dengue co-infection**

Sir,

I read with interest the recent case by Acharya et al. on “Acute dengue myositis with rhabdomyolysis and acute renal failure”[1] and have the following comments to offer.

Malaria and dengue fever are both endemic in India, with active transmission being reported from many areas. Thus, there is a possibility of coexisting malaria and dengue infection in the same patient. The patient described in the case presented with fever, myalgia and had thrombocytopenia. During the course in hospital, he developed myositis, rhabdomyolysis and renal failure. Although dengue antibody titer IgM enzyme-linked immunosorbent assay (ELISA) was strongly positive, such an acute presentation has also been described in association
with malaria.[2-3] It has been postulated in malaria that tumor necrosis factor alpha (myotoxin), increased blood viscosity, red cell sequestration in skeletal muscle, toxins derived from the parasite and lactic acidosis may cause myositis, skeletal muscle necrosis and myoglobinuria.[3,4] The authors have not mentioned whether a peripheral smear or rapid antigen test for malarial parasite was performed in their patient.

Although malaria seems unlikely as the patient recovered without antimalarials, I wish to highlight to our readers that malaria can also cause myositis, rhabdomyolysis and acute renal failure. In endemic areas, malaria and dengue infection can coexist in the same patient. Although causing quite similar symptoms and signs, the treatment of these two illnesses is different. Any suspicion of malaria in disease-endemic areas must be excluded with microscopy and/or rapid antigen test. Failure to recognize malaria or dengue coinfection would delay the initiation of proper therapy and result in increased morbidity and even mortality.

Syed Ahmed Zaki
Department of Pediatrics, Lokmanya Tilak Municipal Medical College and General Hospital, Sion, Mumbai, India

For correspondence:
Dr. Syed Ahmed Zaki, Room no. 509, New RMO Quarters, Lokmanya Tilak Municipal Medical College and General Hospital, Sion - 400 022, Mumbai, India.
E-mail: drzakisyard@gmail.com

References
1. Acharya S, Shukla S, Mahajan SN, Diwan SK. Acute dengue myositis with rhabdomyolysis and acute renal failure. Ann Indian Acad Neurol 2010;13:221-2.
2. Sinniah R, Lye W. Acute renal failure from myoglobinuria secondary to myositis from severe falciparum malaria. Am J Nephrol 2000;20:339-43.
3. Swash M, Schwartz MS. Malaria myositis. J Neurol Neurosurg Psychiatry 1993;56:1328.
4. Miller KD, White NJ, Lott JA, Roberts JM, Greenwood BM. Biochemical evidence of muscle injury in African children with severe malaria. J Infect Dis 1989;159:139-42