

## 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"<sup>[1]</sup> 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.<sup>[2,3]</sup> 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.<sup>[3,4]</sup> 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.

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