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Case Report

BENIGN ACUTE MYOSITIS -AN UNUSUAL PRESENTATION OF DENGUE FEVER

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ABSTRACT
Dengue is an acute mosquito-borne infection caused by dengue viruses from the genus flavivirus. Neurologic complications have been attributed chiefly to metabolic alterations and to focal and sometimes massive intracranial haemorrhages, but anecdotal cases and limited case series have indicated the possibility of viral cns and skeletal muscle invasion causing encephalitis and myositis.
We describe a 23-year-old boy who presented with painful proximal muscle weakness all 4 limbs after 3 days of febrile illness. His investigation showd elevated creatine kinase level, platelets count 25,000 per cu mm and positive dengue igm, and normal urine myoglobin. He was diagnosed as dangue fever with benign acute myositis, treated conservatively and recovered completely. Despite dangue fever being endemic in India, myosits as presenting manifestation is rare.

Key Words : *Dangue fever, Acute Myositis, Myalgia Cruris Epidemica*

INTRODUCTION
Neurological complications of dengue, a common viral infection in India, are increasingly being recognized in recent years. Though varying degrees of myalgias are commonly seen, muscle weakness is uncommon presenting manifestation. Acute myositis has been previously reported (Kalita *et al.,* 2005; Ahmad *et al.*, 2007; Sangle *et al.,* 2010; Rennie, 2005) with occasional reports of rhabdomyolysis (Lim and Goh,2005; Davis and Bourke, 2004).We report a 23 year boy who presented with muscle pain and difficulty in walking, diagnosed as having benign acute myositis later confirmed as having dengue infection.

CASES
A 23-year-old boy was brought to the Neurology department with of sudden onset difficulty in walking. He was apparently well until 3 days back when he developed high-grade fever, without chills or rigors, with lethargy and loss of appetite. On the morning of admission, he developed bilateral calf pain and late afternoon, developed progressive weakness of the lower extremities associated with difficulty in standing from sitting position.
He was afebrile (37.5ºC) with pulse 90 beats/minute regular, blood pressure 120/90 mmHg, respiratory rate 24 breaths/ minute. He had no rashes, pallor or jaundice. Neurological examinations revealed acute normoreflexic, pure motor predominant proximal quadriparesis. Power in the proximal group of muscles was grade 2/5 and in distal muscles was 4/5 in both upper and lower limbs.. Both His calves were warm and tender on active stretching. There was no local swelling of the calf muscles, or fasciculations. The remainder of the physical examination was normal.
His complete blood count showed white blood cells 6,300/mm3, and platelets 55,000/mm3. His Creatine kinase (CK) was markedly elevated (3,270.4 IU/l), Serum alkaline phosphatase was 295.8(normal 108-306 U/L) with Serum Lactate dehydrogenase (LDH) 824 (normal 235-470 U/L)., Serum glutamic oxaloacetic transaminase (SGOT) 168.7, Serum urea 60.8, Serum creatinine 1.2 mg%, Serum calcium 8.4mg%, and Serum potassium 4.1 meq. His electrocardiogram showed no abnormalities. Urine for myoglobinuria was negative. A Pan Bio Rapid test (immunochromatography method) for dengue was

positive. His dengue serology for IgM was positive while the IgG was negative. Patient was diagnosed to have Dengue fever with acute myositis.

He was treated with intravenous fluids, paracetamol and Injection Methyl-prednisolon 1 gm IV infusion for 3 days followed by oral Prednisolone for a week. During hospitalization the fever subsided, her platelet count increased after 4 unit Random Donor and 1unit of Single Donor Platlets. His weakness and pain started improving after 24 hours and he was discharged on the 7th day of hospitalization with normal power and platlet counts.

DISCUSSION

Dengue virus can affect the brain, spinal cord, spinal roots, peripheral nerves and muscles. It can cause myositis and rhabdomyolysis (Kalita *et al.*, 2005; Ahmad *et al.*, 2007; Sangle *et al.*, 2010; Rennie, 2005). Kalita *et al.*, 2005 found 7 of their16 patients presenting with muscle weakness. CPK was elevated in all 7 patients and one patient had muscle biopsy suggestive of myositis

A larger study published from same institute observed neurologic manifestations in two major categories, encephalopathy and pure motor quadriparesis (Mishra and Kalita, 2006). The pure motor quadriparesis group had normal NCS, myopathic EMG and raised serum CK suggesting myositis. All the patients in the myopathy group improved, but the prognosis of encephalopathy group was poor with two deaths. A series of 40 consecutive patients with benign acute myositis (Rajajee *et al.*, 2005) was reported from Kanchi Kamakoti childs Trust Hospital, Chennai. Serological tests were positive for dengue infection (Elisa PAN BIO) in 20(50%).

Malheiros et al, 1993 reported muscle biopsy findings in 15 patients with dangue fever with myalgias without any weakness. They found perivascular mononuclear infiltration in 12 patients and lipid accumulation in 12 patients. Muscle biopsy was not done in our patient as he refused for invasive procedure in view of rapid improvement.

Hemmoragic manifestation are common presentation of dengue fever, but acute myositis is uncommon or may be under-reported in Indian literature. We suggest all cases of dengue fever should be investigated for creatinine kinase levels so that myositis is diagnosed early and potential complications like rhabdomyolysis and respiratory failure can be avoided.

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