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SCIENTIFIC LETTER

Neurologic Presentation of Kawasaki Disease

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To the Editor: Kawasaki Disease (KD) is a multisystem vasculitis with known neurologic involvement, but central nervous system (CNS) complications as initial presentation of KD are extremely rare [1]. We present two cases of KD with neurologic presentation.

A three-year-old-girl, with history of high grade fever, rash and redness of eyes, developed extreme irritability and ataxia, on day 3. Cerebrospinal fluid (CSF) examination, nerve conduction study and magnetic resonance imaging of brain were normal. Laboratory studies showed high normal leukocyte and platelet count, high erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP). Serum electrolytes, renal and hepatic function were normal, with negative serology for dengue, scrub typhus and leptospirosis and negative work up for immune mediated ataxia. On day 6, patient developed right hemiparesis with persistently high ESR, CRP, leukocyte and platelet count and a normal echocardiogram. With working diagnosis of KD, intravenous immunoglobulin (IVIG) (2 g/kg over 12 h) was given with aspirin (80 mg/kg/d for 3 d, followed by 5 mg/kg/d for 8 wk). Patient recovered neurologically with defervescence of fever within 72 h of treatment. Development of periungual peeling on day 13 of illness along with rising platelet count supported the diagnosis of incomplete KD.

A five-month-old infant, presented with history of fever for 3 d, rash all over body, vomiting and altered sensorium. Patient had tachycardia, hypotension, maculopapular rash, hepatomegaly, depressed sensorium and depressed deep tendon reflexes, on examination. CSF examination was consistent with aseptic meningitis which was treated accordingly. Patient responded to treatment but with recurrence of fever after 5 d of defervescence. ESR, CRP and platelet count were high. Echocardiogram showed aneurysms of right coronary artery [4.5 mm (z score + 9.7)] and left anterior descending artery [5 mm (z score + 12.6)]. Patient was diagnosed as infection triggered KD and given IVIG (2 g/kg over 12 h), aspirin (80 mg/kg/d till 48 h of defervescence, and continued on 5 mg/kg/d), and warfarin. Patient's fever subsided with no recrudescence and he is presently under follow up for coronary artery aneurysms.

Neurologic involvement in KD is reported in 1.1% to 3.7% of KD cases [2]. It ranges from soft neurologic symptoms like irritability and lethargy to CNS involvement in form of seizures, aseptic meningitis, facial nerve palsy, hemiplegia, cerebral infarction and coma. Role of single-photon emission computed tomography (SPECT) is emerging in evaluation of cerebral hypoperfusion in KD secondary to cerebral vasculitis [3]. Further studies are needed to assess the incidence of neurologic complications of KD, long term sequelae, role of radiologic imaging, and IVIG in treating these manifestations.

Compliance with Ethical Standards

Conflict of Interest None.

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