

Ibuprofen-induced DRESS Syndrome in a Child

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) is a rare drug-induced hypersensitivity syndrome with life-threatening complications. Although there are a few reported cases of ibuprofen-induced DRESS syndrome in adults [1], It has not been reported in children. We report here a child with DRESS syndrome triggered by ibuprofen.

An 11-year-old boy was admitted with complaints of fever, and rash on the face and body for last five days. He had used ibuprofen for a few days due to myalgia and fever about a month ago. He was febrile and had maculopapular rash on face, body and legs. Laboratory findings were: hemoglobin 13.4 g/dL, white cell count 10400/mm³, platelet count 360000/mm³, absolute eosinophil count 1560/mm³, total bilirubin 3.2 mg/dL, direct bilirubin 1.7 mg/dL. ESR 49 mm/h, CRP 33 mg/dL, ALT 69 IU/L, AST 63 IU/L and GGT 101 IU/L. Blood culture and throat culture were negative. Serological tests for Epstein-Barr, cytomegalovirus, HHV-6, hepatitis A, hepatitis B, hepatitis C, HIV, and parvovirus B19 were negative. Hepatobiliary ultrasonography showed normal findings. His skin rash and fever regressed, and transaminase level decreased in 48 hours after starting oral methylprednisolone (2 mg/kg/day). Three weeks later, he had no complaints, and laboratory findings were all in normal ranges.

DRESS syndrome usually occurs 2-6 weeks after exposure to the causative drug. The skin, liver, and hematological system are most commonly involved. Hematological abnormalities are leukocytosis, eosinophilia and atypical lymphocytes [2]. Other manifestations are lymph node enlargement, pneumonia, nephritis, myocarditis, encephalitis, and rarely pancreatitis. The child's score for defining DRESS syndrome was seven, and this pointed to 'definite case' [2]. Rapid response to corticosteroids also supported our diagnosis.

Differential diagnoses of DRESS syndrome include

Steven-Johnson syndrome, toxic epidermal necrolysis, rheumatological diseases, and infectious diseases. Pathogenesis of DRESS syndrome is not well known. Hypersensitivity reaction secondary to circulating antibodies or toxic metabolites is implicated; herpesvirus-6 is also postulated to play a role in its etiology [3]. The incidence is approximately 1 in 1,000 to 1 in 10,000 exposures [4]. DRESS syndrome has a mortality rate of 10–20%, with most fatalities resulting from liver failure.

Drugs mostly related with DRESS are anti-convulsants, sulfa derivatives, antimicrobials and anti-inflammatory drugs, with only a few adult cases related to ibuprofen [2,5]. To our knowledge, this is probably the first report on DRESS syndrome triggered by ibuprofen in the pediatric age group.

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