

Anticonvulsant hypersensitivity syndrome in children: Report of two cases

S Likasitwattanakul, C Pruksachatkunakorn

Department of Paediatrics, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

Background and Objective: Antiepileptic drugs (AED) could cause several cutaneous adverse side effects ranging from morbilliform rashes to Steven-Johnson syndrome and toxic epidermal necrolysis. One of the rare but potentially fatal side effects is anticonvulsant hypersensitivity syndrome, which is characterised by clinical triads of fever, rash and multiple organ involvement. The most common causative drugs are aromatic AED (phenobarbital, phenytoin, and carbamazepine). Prompt recognition of early and various clinical manifestation of this syndrome is important.

Methods: Two cases of children who developed fever and skin rashes within 3 weeks after phenobarbital initiation are reported. Multiple organ involvement was detected after extensive work-up.

Results: Both cases with generalised tonic-clonic seizures were treated with phenobarbital. Fever and rashes developed in the 3rd and 2nd week in the first and second patient, respectively. Phenobarbital was discontinued after a possible diagnosis of drug hypersensitivity syndrome. Skin rashes initially were erythematous maculopapular eruptions which rapidly progressed to toxic epidermal necrolysis in both patients. Both patients exhibited hepatosplenomegaly, abnormal liver function tests and coagulopathy during the course of illness. The first patient was successfully treated with high dose steroid. The second patient expired from hospital-acquired septicemia.

Conclusion: Anticonvulsant hypersensitivity syndrome is a severe and potentially fatal drug hypersensitivity condition. Physicians should be aware of this syndrome when prescribing anticonvulsants, especially with aromatic AEDs. Prompt recognition, immediate discontinuation of the causative drug and supportive care are crucial management strategies. Since cross hypersensitivity among aromatic AEDs is common, benzodiazepines may be alternative AEDs to attain seizure control.