

Evaluation of children admitted with a history of drug allergy: from claim to confirmation

Uyaniker, M¹ ; Arikoglu, T² ; Tufekci, S² ; Kuyucu, S²

¹Mersin University Hospital, Pediatrics, Mersin, Turkey

²Mersin University Hospital, Pediatric Allergy and Immunology, Mersin, Turkey

Background: Parent-reported drug allergy is a frequent claim in clinical practice and has a considerable impact on prescription choices. A detailed and algorithmic diagnostic evaluation for drug hypersensitivity may allow a proper diagnosis or exclusion.

Objectives: To determine the real frequency of drug hypersensitivity in children admitted for a presumptive diagnosis of drug allergy, using a standardized diagnostic protocol.

Methods: Children who had a parent-, or physician-reported drug allergy claim among all the children admitted to outpatients and inpatient clinics of Mersin University, Department of Pediatrics between May 2009 and November 2010 were included in the study. Children with immediate manifestations (within 1 hour) underwent immediate-reading skin prick (SPT) and intradermal tests (IDT) and provocation tests with the culprit drugs. Children with nonimmediate manifestations (after 1 hour) were assessed with patch tests, immediate- and delayed reading prick and intradermal skin tests, and provocation tests.

Results: We evaluated 105 children with a history of hypersensitivity reactions to drugs, mainly antibiotics, analgesic-antipyretics, and antiepileptics. Among all, 58 (55.2%) had experienced immediate manifestations (anaphylaxis, urticaria and/or angioedema, and erythema) and 47 (44.8%) non-immediate manifestations (mostly urticarial, erythematous, maculopapular or nonspecific rashes). The average time interval between the reaction and evaluation was 6.3 months (min 1 month– max 18 months). Among 58 subjects with a reaction history to antibiotics, 15 (25.8%) demonstrated positive immediatereading SPT or IDT – results; one with PPL, four with MDM, two with benzyl penicillin, three with amoxicillin, three with ampicilin, and two with claritromycin and nine (15.5%) had positive provocation tests with the culprit drugs. In NSAII group, 2 (0.6%) of 32 patients demonstrated positive immediate-reading SPT or IDT results, while five (15.6%) children reacted to drug provocations; two to acetaminophen and three to ibuprofen. Among patients with a history of anaphylaxis with succinylcholine one (50%) of two patients had positive immediate skin-test result.

Conclusions: Children with parent-reported drug allergy should be evaluated with an exhaustive diagnostic work-up including oral provocation tests, before strict diagnosis and drug prohibitions are made. Many children tolerate the culprit drugs well after the acute episode of presumptive.