

# Quick Detective Work Is Needed to Identify, Treat DRESS Syndrome

BY DAMIAN McNAMARA  
Miami Bureau

SAN ANTONIO, TEXAS — Drug rash with eosinophilia and systemic symptoms syndrome is a severe drug hypersensitivity reaction syndrome that can manifest weeks after initiation of therapy, so detective work may be needed to identify and quickly stop the culprit, Dr. Asra Ali said at a meeting sponsored by Skin Disease Education Foundation.

“Hypersensitivity reactions tend to cause severe effects in our patients,” she said. Patients who have the drug rash with eosinophilia and systemic symptoms (DRESS) syndrome often present with a triad of fever, dermatitis, and internal organ involvement. An estimated 10% do not recover.

“DRESS syndrome is a delayed reaction ... so we look at a drug calendar to identify which medications might be causing the hypersensitivity. Unfortunately, at M.D. Anderson [Cancer Center in Houston] they are often put on 10 different medications at admission, so it’s sometimes difficult to determine which drug is causing the hypersensitivity,” said Dr. Ali of the center’s department of dermatology.

DRESS syndrome can affect almost any organ system but most often attacks the skin (84%-100% of patients). Cutaneous symptoms include morbilliform eruptions, blisters, exfoliative dermatitis, erythroderma, and facial edema. “Drug-induced maculopapular exanthems account for about 95% of all drug-induced cutaneous eruptions we see,” Dr. Ali said.

Systemic symptoms include renal dysfunction, which affects fewer than 30% of patients. Proteinuria is the most frequently reported renal abnormality. Lung involvement is not very common, thyroiditis affects only a small subset of patients, and cardiac abnormalities are very rare, Dr. Ali said. Pericarditis and tachycardia have been reported with minocycline use.

Minocycline triggered DRESS syndrome in 18 patients in a French database study from 1985 to 2000 (*Br. J. Dermatol.* 2006;155:422-8). Other drugs implicated for inducing cutaneous injury included abacavir (68 cases), carbamazepine (63), nevirapine (22), allopurinol (21), lamotrigine (7), and phenytoin (7).

Unlike the more common type A drug reactions that can be predicted from the pharmacology of a drug, such as sedation from antihistamines, DRESS syndrome is a type B reaction. “These are called the bizarre reactions—we cannot predict them. We worry about these the most,” she said.

If DRESS syndrome is suspected, one should first rule out a mimicking infection such as staph toxic shock syndrome. Other conditions in a differential diagnosis include viral eruption, angio-immunoblastic lymphadenopathy, vasculitis, Kawasaki disease, serum sickness, and exfoliative dermatitis (from psoriasis, dermatitis, or lymphoma, for example). “HIV patients are more susceptible to developing DRESS, as are patients with autoimmune diseases,” Dr. Ali noted.

Although drug hypersensitivity reactions feature a wide range of presentations, treatment for all is similar. Prompt withdrawal of the offending drug is critical, but a rash and hepatitis can persist for weeks afterward. Antipyretics, supportive care, high-dose intravenous *N*-acetylcysteine, and topical steroids are treatment options. “We typically do give systemic steroids, although it may promote viral activation if the patient has” human herpes virus 6, she cautioned.

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