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Visual Diagnosis in Emergency Medicine

DRUG REACTION WITH EOSINOPHILIA AND SYSTEMIC SYMPTOMS (DRESS SYNDROME)

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CASE REPORT

A 64-year-old man with acute myeloid leukemia and recent stem cell transplant presented to the Emergency Department with 4 days of progressive rash, malaise, and fevers up to 38.8°C. His immunosuppressive regimen had not been recently changed, except for the initiation of trimethoprim-sulfamethoxazole 3 weeks prior for prophylaxis. On examination, he had erythema of the face and neck with periorbital edema and scaling (Figure 1), as well as a morbilliform eruption of his arms and trunk that spared mucous membranes and areas compressed by his suspenders (Figure 2). Laboratory tests were notable for an elevated eosinophil count (1050/μL, 9.6%), an elevated creatinine (1.13 mg/dL) as compared with his baseline (0.6 mg/dL), and a positive quantitative cytomegalovirus test (204 IU/mL). The patient was started on oral and topical steroids, with improvement in his clinical symptoms and normalization of his eosinophil counts and creatinine.

Figure 1. Facial erythema with prominent periorbital edema that spares mucous membranes.

DISCUSSION

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) syndrome is defined as a severe drug-induced hypersensitivity reaction, characterized by erythematous rash, facial edema, eosinophilia, and

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Figure 2. Morbilliform eruption of the arms and the trunk, sparing areas compressed by suspenders.

internal organ involvement with a relatively long latency period between drug exposure and onset of disease. The syndrome is most frequently caused by allopurinol, antiepileptics (carbamazepine, lamotrigine, phenytoin, and phenobarbital), and antibiotics (sulfamethoxazole, dapsone, minocycline, and vancomycin). DRESS is often associated with reactivation of latent viruses, most commonly human herpesvirus 6. Treatment includes discontinuation of the offending drug and initiation of high-dose steroids with a prolonged taper.