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DRESS (drug rash, eosinophilia, and systemic symptoms) Syndrome and Leflunomide: A Case Report

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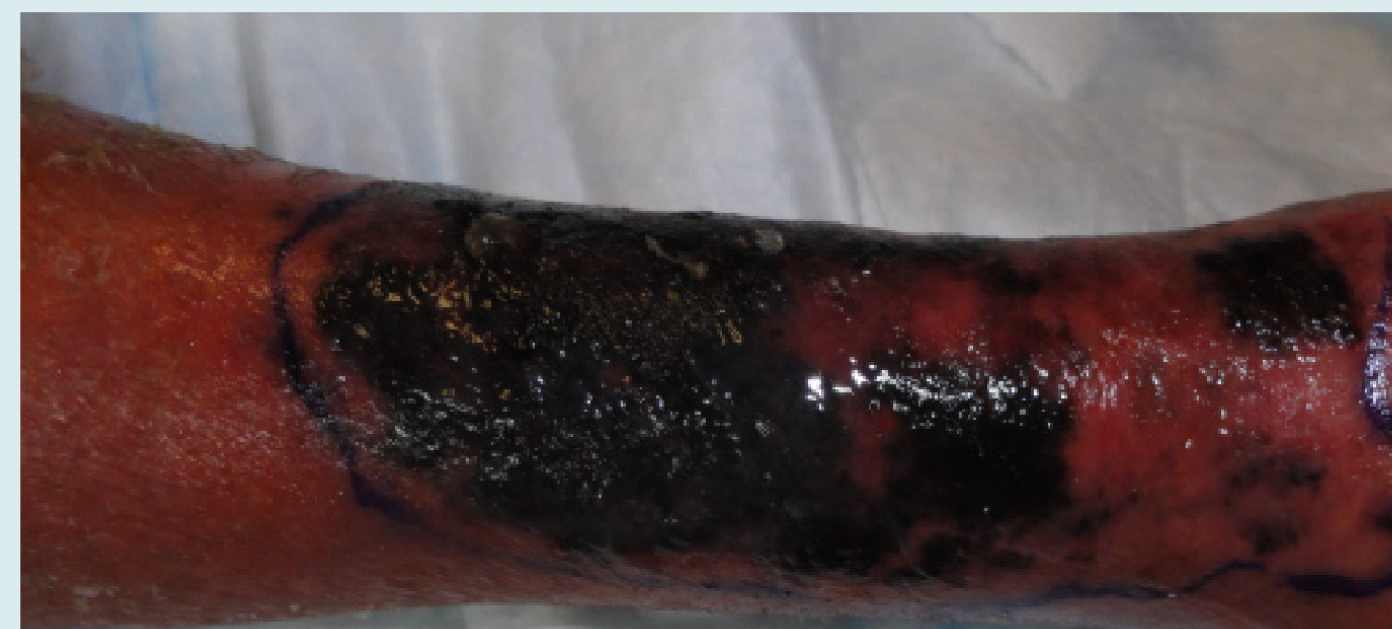
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INTRODUCTION:

DRESS (drug rash, eosinophilia, and systemic symptoms) syndrome is a drug hypersensitivity reaction that can present after exposure to several drugs mainly antiepileptics and antibiotics.² Symptoms includes fever, diffuse rash, eosinophilia and organ damage that develops 2-6 weeks after initiation of a medication. Common agents are carbamazepine, sulfasalazine, phenobarbital, vancomycin, and rarely leflunomide.² DRESS syndrome can be fatal and early withdrawal of medication is crucial for survival. Here is a case of a 59-year-old female who was recently prescribed leflunomide for rheumatoid arthritis and developed DRESS.

CASE PRESENTATION:

A 59-year-old female with rheumatoid arthritis on chronic steroids and recently prescribed leflunomide presented with diffuse rash, stomatitis, eosinophilic dominant leukocytosis and severe diarrhea from an OSH. Patient was afebrile and vitals were stable on admission. Physical exam revealed diffuse exfoliative dermatitis and erythema with involvement of the lips and oral mucosa. Initial labs were significant for leukocytosis of 20.7 w/ bandemia and eosinophilia 47%, Cr of 7.1, lactate of 2.8 with an anion gap metabolic acidosis. The patient was transferred to the ICU for airway protection, intubated and eventually underwent tracheostomy. During admission, Dermatology, Rheumatology, Nephrology, Gastroenterology, Burn and Infectious Disease were consulted to see the patient. A skin biopsy eventually confirmed the diagnosis of drug reaction with eosinophilia and systemic symptoms (DRESS). The patient's hospitalization however was complicated by septic shock due to MSSA pneumonia and VRE bacteremia. Despite antibiotics and vasopressors, the patient unfortunately expired on the ventilator.



1. left arm initial



2. left arm update



3. right knee

DISCUSSION:

To meet the definition of DRESS, patients must have three of the four main RegiSCAR criteria including acute rash, fever about 38C, lymphadenopathy, involvement of at least one internal organ and abnormalities in eosinophil counts.¹ The most commonly affected sites are the liver, kidney and lungs. In this patient, pulmonary and renal involvement predominated as evidenced by her pneumonia and renal failure. Though rare, there are several case reports that report similar instances of DRESS after induction of leflunomide.^{1,2,3} Interestingly, there are also case reports that suggest this occurrence may be more prevalent in Asian populations due to HLA-B phenotypes as was seen in our patient.⁴ Systemic corticosteroids remain the gold standard of treatment with supportive care. Unfortunately, some patients can fall victim despite maximal medical therapy. Therefore, prompt treatment should occur if clinical suspicion is high.

CONCLUSION:

Due to its overlap of many clinical symptoms, DRESS can mimic other severe systemic disorders.¹ It should however, should still be kept in the differential diagnosis especially when patients have recently been initiated on a medication such as leflunomide. Prompt recognition can prevent devastating outcomes as seen with this patient.

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