

Background

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) is a hypersensitivity reaction to medications with symptoms occurring 2-8 weeks after initiation of offending agent.

Anti-epileptics as well as antibiotics, allopurinol, and NSAIDs are known inciting medications; however, this list is not exhaustive.

Morbiliform and papular rashes are common systemic findings; however, visceral organ involvement, including liver and kidney dysfunction, have also been well-reported.

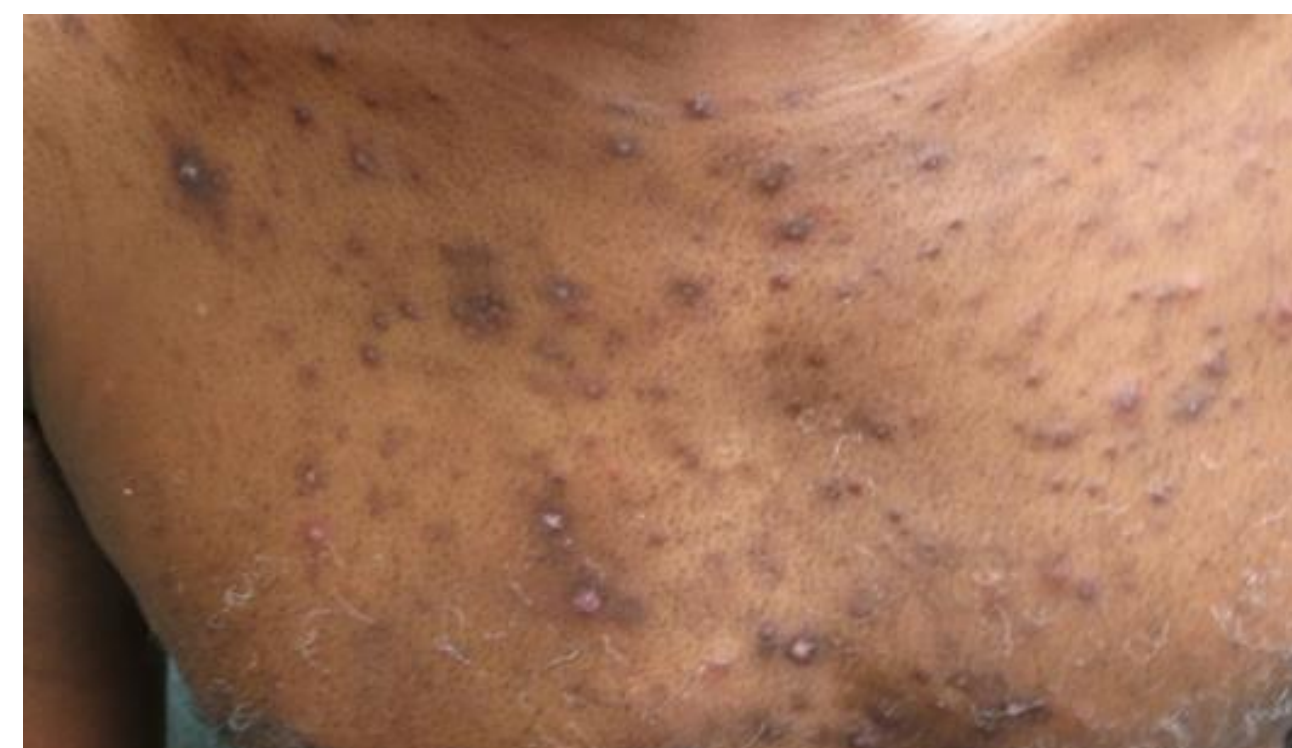
Case Presentation

67-year-old Female presented to ED with dizziness, lightheadedness, and RUE weakness

PMH: Polymyositis, CKD IV with anemia of CKD, T2DM, HTN, HLD, OSA, COPD, MDD with psychotic features

Meds Amlodipine, Aspirin, Azathioprine, Jardiance, Trelegy, Symbicort, Furosemide, Glipizide, Hydralazine, Lisinopril, Sertraline, Quetiapine

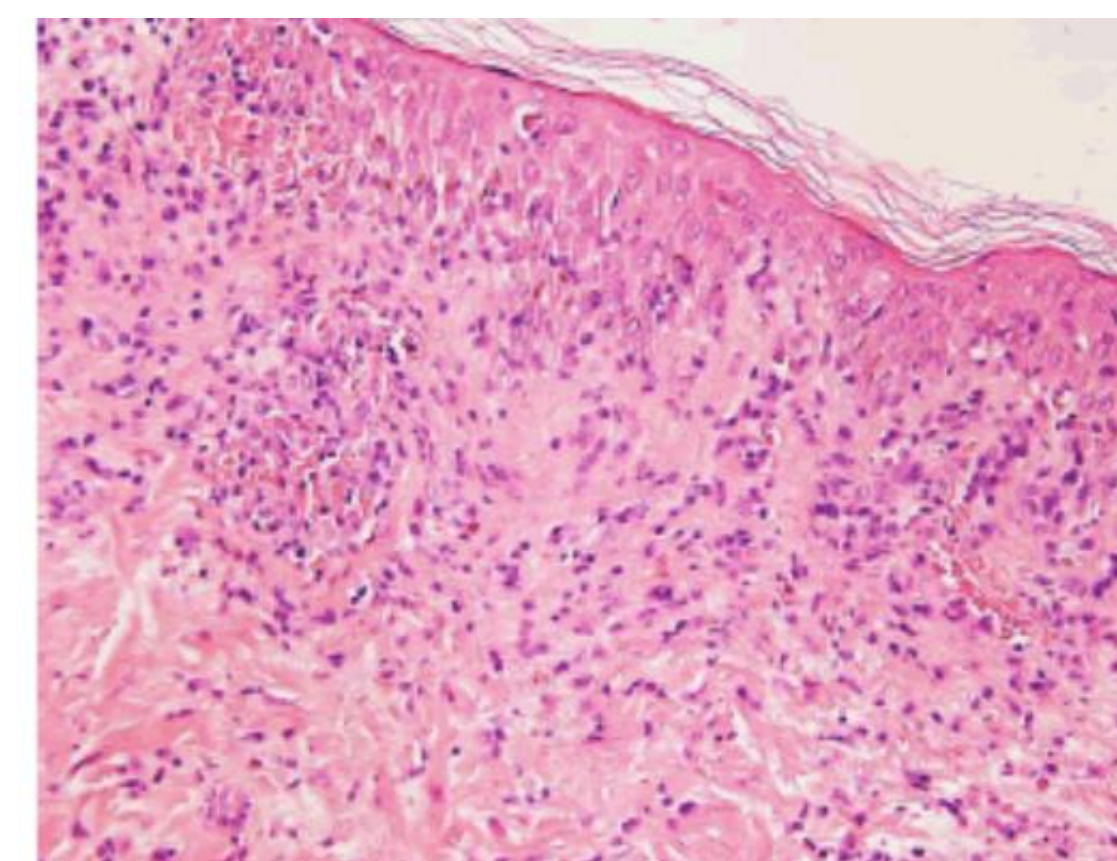
Pertinent PE: diffuse, pruritic papular rash on the trunk and bilateral upper extremities, scleral icterus, jaundice, dark urine, pale stools, and trace bilateral lower extremity edema.



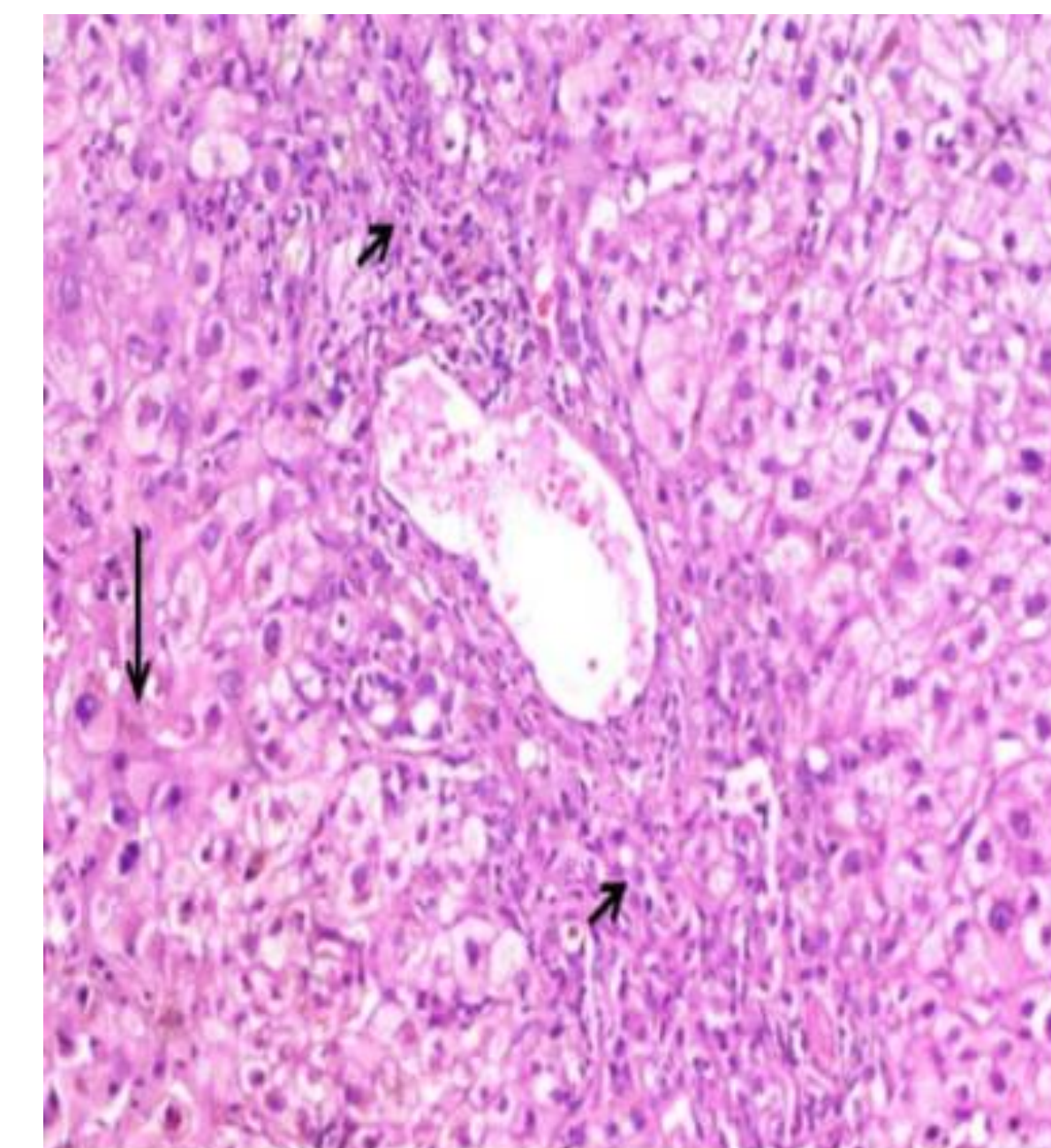
Investigative Studies

RBC	3.80 - 5.20 M/uL	2.52 (L)	Bicarbonate (TCO2)	23 - 31 mEq/L	15 (L)
Hemoglobin	12.0 - 16.0 g/dL	7.9 (L)	Anion Gap (calc.)	4 - 12 mEq/L	18 (H)
Hematocrit	35.0 - 47.0 %	25.1 (L)	BUN	10 - 20 mg/dL	96 (H)
MCHC (calc.)	32.0 - 36.0 g/dL	31.5 (H)	Creatinine	0.57 - 1.11 mg/dL	4.02 (H)
RDW	11.5 - 14.5 %	17.7 (H)	Glomerular Filtration Rate	>=59 mL/Min	12 (L)
Lymphocyte (#)	1.00 - 4.80 k/uL	0.41 (L)	Bilirubin, Direct	<=0.5 mg/dL	6.7 (H)
Eosinophil (#)	0.00 - 0.50 k/uL	1.16 (H)	Bilirubin, Total	0.1 - 1.2 mg/dL	8.3 (H)
Immature Granulocytes #	0 k/uL	0.07 (H)	Alkaline Phosphatase	40 - 150 U/L	693 (H)
Calcium	8.4 - 10.2 mg/dL	8.1 (L)	AST (SGOT)	5 - 34 U/L	137 (H)
Phosphorus	2.3 - 4.7 mg/dL	5.8 (H)	ALT (SGPT)	0 - 55 U/L	97 (H)

Punch Biopsy from Skin:
Neutrophils with eosinophilic infiltrate



Liver Biopsy:
prominent cholestatic pattern with mild portal chronic inflammatory cell infiltrate and associated focal hepatocyte morphological changes. These findings were thought to be likely due to drug-induced cholestasis.



Patient Outcomes

She was started on 1 mg/kg (120 mg daily) methylprednisolone for a three-day course followed by prednisone 40 mg daily. Given the concern for ongoing DRESS-related findings, the patient was restarted on prednisone 60 mg daily.

The patient did experience psychiatric decompensation, including worsening hallucinations, after holding Quetiapine. She was switched to Aripiprazole 5mg daily and experienced mood improvement with resolution of auditory hallucinations. She also underwent ECT during hospital course.

Her hospital stay was prolonged due to contraction of COVID as well as for management of the sequelae of DRESS.

Diagnostic Criteria

Registry of Severe Cutaneous Adverse Reaction (RegiSCAR)

- Hospitalization
- Reaction thought to be medication-related
- *Acute Rash
- *Lymphadenopathy in at least two sites
- *At least one internal organ system affected
- *Fever >38C
- *Blood Count Abnormalities
 - Lymphocytosis OR Lymphopenia
 - Thrombocytopenia
 - Eosinophilia

Diagnosis: At least 3 asterisked (*) criteria

Points of Consideration

The list of drugs associated with the development of DRESS continues to expand, so clinicians must maintain a high index of suspicion.

DRESS may be overlooked in patients with signs of acute liver injury.

Though skin involvement is a common finding, the more "typical" eruptions may be difficult to appreciate in individuals with darker skin.

References

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