DiHS / DRESS secondary to trimethoprim-sulfamethoxazole use presenting as shock : a case report.

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BACKGROUND

Drug-induced Hypersensitivity Syndrome (DiHS) and Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) Syndrome is documented to traditionally present with erythrodermic skin rash, fever, eosinophilia and end organ dysfunction (particularly liver). It is typically attributed to ingestion of certain medications weeks prior to presentation. We describe a case of DRESS syndrome that presented with a sepsis like phenotype to demonstrate the importance of differentiating between sepsis and DRESS as lifesaving treatment is critically different.

CASE PRESENTATION

A 53 year-old male with End Stage Renal Disease (ESRD) on hemodialysis and heart failure presented with acute hearing and vision loss.

- On exam, he was afebrile, tachycardic and hypotensive. Bilateral visual and hearing loss was noted along with an erythematous papular rash consistent with erythroderma (**Images 1-3**) and a healed trans-metatarsal amputation (TMA).
- Labs revealed glucose 63, lactate 3.5, WBC 17.03, 5% bands (neutrophilic predominance) and 24% eosinophils on differential.
- CT head was negative.
- He was fluid resuscitated and given antibiotics.

Of note, three weeks prior to presentation, he underwent left TMA due to gas gangrene. He was discharged on amoxicillin-clavulanic acid after receiving trimethoprim-sulfamethoxazole.

HOSPITAL COURSE

Withing 24 hours of admission, he became febrile, tachycardic and hypotensive despite fluid and antibiotic administration ultimately requiring vasopressors. Vision and hearing loss resolved however physical exam revealed diffuse lymphadenopathy.
Culture data was negative but eosinophilia persisted. Punch biopsy revealed subacute spongiotic dermatitis with eosinophils consistent with DRESS. He was treated with methylprednisolone and antihistamine. Antibiotics were discontinued. The patient's hemodynamics improved and vasopressors were weaned and he was eventually safely discharged from the hospital.

IMAGING

Images 1-3: erythroderma rash noted on physical exam

DISCUSSION

- DiHS and DRESS are most commonly associated with antiepileptics, allopurinol, sulfonamides and occ asionally cephalosporins.
- This syndrome traditionally presents with fever, erythrodermic rash, eosinophilia and renal and/or liver dysfunction however our patient had no evidence of liver involvement.
- Hemodynamic instability has typically not thought to be part of the diagnostic criteria for DRESS.
- There have been multiple cases of DRESS with a shock like presentation which can make it difficult to discern from sepsis yet treatment for each etiology is critically different.
- Prompt recognition and treatment of DiHS/DRESS is vital, as mortality is seen in about 10% of all cases.
- Treatment entails discontinuing the offending agent and IV corticosteroids.

CONCLUSION

This case illustrates the importance of keeping a high degree of suspicion for drug induced reactions in the setting of shock in combination with eosinophilia, rash, and lymphadenopathy. Given lifesaving treatment is dramatically different for drug induced reaction versus sepsis, early multi-disciplinary evaluation is crucial.

REFERENCES

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