A TEN-YEAR-OLD WITH RASH AND FEVER: ATYPICAL PRESENTATION OF KAWASAKI DISEASE

Kathryn Martin, MPH[1], Lamiaa Ali, MD[2]

[1]University of Oklahoma School of Community Medicine, Tulsa, OK

[2]Department of Pediatrics, University of Oklahoma School of Community Medicine, Tulsa, OK

INTRODUCTION

- Kawasaki Disease (KD) is the leading cause of acquired heart disease in young children in the U.S; however, its exact etiology remains unknown.[1,4]
- Diagnosis of KD is made by observing a combination of clinical symptoms, including fever, conjunctival congestion, cervical lymphadenopathy, and changes in oral cavity and peripheral extremities.[1,2]
- KD may have an atypical presentation, meaning that patients have an incomplete presentation of the disease, as demonstrated in this case.[3]

CASE PRESENTATION

Presentation

- A ten-year-old, ill-appearing female presented to the ED.
- Fever of 100.6°F and an erythematous, blanchable, maculopapular rash diffusely across her body were noted.
- Conjunctivas were clear and posterior pharynx was erythematous without exudates.
- Rapid strep test (RST) was negative.

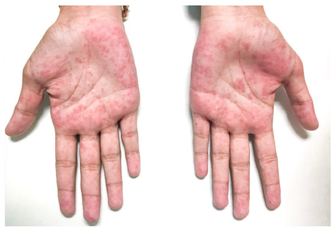
3 Days After Presentation

- Presented to PCP with a continuous fever (Tmax: 102°F), nonbilious nor bloody emesis, and decreased urine output.
- On exam, swelling of the face with a petechial skin rash around both eyes, a left-sided subconjunctival hemorrhage, and mild erythematous rash on both arms and legs were noted.
- RST remained negative.
- A urine analysis was conducted, and she was admitted to the pediatric inpatient service.
- The patient remained in the hospital for five days. She was treated with doxycycline for suspected tick-borne illness, pending additional lab results, and sent home.

3 Days Post-Discharge

- Returned to the clinic reporting nausea and vomiting.
- Family reported she had a purple/blue tongue two days prior.
- Strawberry-like tongue and a desquamating rash on her palms, soles and peri-inguinal area were noted on physical exam.
- She was once again readmitted.

Example of desquamating rash



CASE DESCRIPTION

DIFFERENTIAL DIAGNOSIS

- Atypical Kawasaki Disease, Viral Pharyngitis with Subsequent Ileus, Viral Gastritis, Scarlet Fever, Tick-borne Illness (*Rickettsia rickettsii*), Poststreptococcal Glomerulonephritis, Acute Hemolytic Uremic Syndrome, Pancreatitis, Autoimmune Disease

TESTS

Initial Presentation at Clinic

Urine Analysis: Large bilirubin and ketones.
Trace of blood, protein and leukocytes.

First Hospital Admission

Direct Hyperbilirubinemia (1.9)
Elevated Transaminases (ALT: 75)
Elevated GT and Lipase
Decreased Albumin (3.7)
Elevated ESR, CRP, and Haptoglobin
Tick titers negative

Second Hospital Admission

Elevated ESR (50)
Increased CRP (3.01)
Elevated ALT (52)
High Total Bilirubin (1.8)
Leukocytosis with left shift (WBC: 13.9, Neutrophils: 10.1)
Thrombocytosis (563)
DNAase B antibody negative
Echocardiogram indicated no abnormalities.

FINAL DIAGNOSIS

Atypical Kawasaki Disease

TREATMENT/OUTCOME

- Treated with 2g/kg IVIG and 81mg ASA daily.
- Patient improved clinically throughout second hospital stay of three days, remaining afebrile and having two episodes of emesis.
- Followed up with pediatric cardiology for coronary artery aneurysm re-assessment after six weeks. No abnormalities noted on exam and discontinued aspirin at that time.

DISCUSSION & REVIEW

- This case demonstrates an atypical presentation of Kawasaki Disease, with 11 days of related symptoms until clinical diagnosis.
- Purposeful questioning along with physical exam and lab findings assisted in determining the diagnosis.

CONCLUSION

- Recognition of KD is critical due to its potential to cause fatal coronary artery aneurysms in children.
- After appropriate treatment with IVIG and ASA, every child should follow up with pediatric cardiology to ensure that no cardiac issues arise.
- This specific atypical presentation of Kawasaki Disease should remind clinicians to always be aware of the diverse manners in which this syndrome may appear.

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