

A Rare Case of Zieve's Syndrome

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Background

- ❖ Zieve syndrome is a rare disease resulting from severe alcohol abuse and binge drinking.
- ❖ Classic triad of hemolytic anemia, cholestatic jaundice, and hyperlipidemia [1].
- ❖ The mechanism of hemolysis in this disease is likely attributed to pyruvate kinase instability [2].
- ❖ Approximately 200 cases of reported Zieve's syndrome are described, however since it's considered to be underreported the true prevalence may be higher [2].
- ❖ Alcohol promotes excessive synthesis of free fatty acid and deposits of lipoproteins.

Differential

- ❖ Macrocytic Anemia
- ❖ Autoimmune Hemolytic Anemia
- ❖ Aplastic Anemia
- ❖ Leukemia
- ❖ Acute Alcoholic Hepatitis

Case Presentation

43 year old history of alcohol abuse, decompensated cirrhosis with a variceal bleed presented with multiple falls.

Upon presentation, he was found to be debilitated, hypotensive and severely anemic with a hemoglobin of 2.6.

Last visit 2 years ago, he underwent endoscopy and was diagnosed with esophageal varices.

Total 5 units packed red blood cell transfusions for severe anemia and transferred to ICU.

Started on octreotide at this time due to decompensated liver cirrhosis. Coomb's test returned positive.

The triad of Zieve's syndrome seen consisting of hemolytic anemia, cholestatic jaundice, and hyperlipidemia

Discussion

- ❖ The hemolysis and hepatocyte injury from alcohol abuse have a combined effect resulting in significant hyperbilirubinemia.
- ❖ The jaundice is characteristic for direct bilirubin elevation, thus indicating alcohol-induced cholestasis
- ❖ Alcoholism-induced pancreatic damage to alpha cells causing hyperlipidemia
- ❖ The identification of hemolytic anemia is essential for establishing the diagnosis of Zieve's syndrome and differentiating the presentation versus acute alcoholic hepatitis which is associated with macrocytic anemia.

Conclusion

- ❖ Early diagnosis can improve patient safety and prompt cost-effective care.
- ❖ With early recognition, efficient diagnosis and proper treatment, unnecessary invasive procedures can be avoided.