

## Introduction

- Cryoglobulinemia is a small and medium vessel vasculitis with varied clinical manifestations <sup>(1)</sup>
- The most common etiology is hepatitis C virus
- Other hepatotropic viruses, including hepatitis A, have been rarely associated, with a very few cases reported <sup>(2)</sup>
- Here we present a unique case of cryoglobulinemia associated with hepatitis A

## Case presentation

- A 58-year-old female with a past medical history of diabetes mellitus II, hypothyroidism, and hypertension presented with bloating, abdominal pain, and fullness for about a week
- In the ED she was afebrile and hemodynamically stable. Initial lab workup showed AST/ALT of 5228/4792, total bilirubin of 7.9 with a direct bilirubin of 6.1
- Further workup for showed positivity for hepatitis A, including IgM and positive type II cryoglobulins
- The rest of the autoimmune workup was negative for rheumatoid factor, ANA, SS/Ro, SS/La, anti-smooth muscle antibody, and anti-mitochondrial antibody

- She also had acute renal failure requiring hemodialysis. Management included supportive therapy with significant improvement in her symptoms.

## Discussion

- Cryoglobulinemia is a condition where abnormal immunoglobulins precipitate in serum at temperatures below 37° C <sup>(5)</sup>
- They can deposit in blood vessels and cause obstruction or vasculitis, with involvement of various organs
- Type I cryoglobulinemia is usually associated with hematologic malignancies
- Mixed cryoglobulinemia (type II, III) is usually associated with hepatitis C, but is uncommon with hepatitis A
- Extrahepatic features with hepatitis A virus is rare <sup>(4)</sup>
- Literature review shows very few case reports of cryoglobulinemia occurring with hepatitis A
- To our knowledge, this association has not been investigated in the recent years

## References

1. Desbois AC, Cacoub P, Saadoun D. Cryoglobulinemia: An update in 2019. *Joint Bone Spine*. 2019 Nov;86(6):707-713. doi: 10.1016/j.jbspin.2019.01.016. Epub 2019 Feb 4. PMID: 30731128.
2. Schiff ER. Atypical clinical manifestations of hepatitis A. *Vaccine*. 1992;10 Suppl 1:S18-20. doi: 10.1016/0264-410x(92)90534-q. PMID: 1475999.
3. Inman RD, Hodge M, Johnston ME, Wright J, Heathcote J. Arthritis, vasculitis, and cryoglobulinemia associated with relapsing hepatitis A virus infection. *Ann Intern Med*. 1986 Nov;105(5):700-3. doi: 10.7326/0003-4819-105-5-700. PMID: 3021038.
4. Shalit, M., Wollner, S., & Levo, Y. (1982). Cryoglobulinemia in acute type-A hepatitis. *Clinical and experimental immunology*, 47(3), 613–616.
5. Levo Y. Nature of cryoglobulinaemia. *Lancet*. 1980 Feb 9;1(8163):285-7. doi: 10.1016/s0140-6736(80)90781-3. PMID: 6101740.