



## Introduction

- Warm autoimmune hemolytic anemia [AIHA] is caused by autoantibodies that react with self-red blood cells at body temperature and cause hemolysis.
- Etiology is idiopathic in half of the cases and the rest is attributed to medications or underlying medical conditions.
- Clinical presentations can range from mild to severe forms depending upon the rate of hemolysis.
- We present a severe case of Warm AIHA after the first dose of mRNA COVID-19 vaccination which was successfully treated with corticosteroids.

## Case Presentation

- A 77-year-old Caucasian male with no significant past medical history presented to the ED with chief complaints of dyspnea on exertion and lightheadedness for one week. Patient denied any exertional chest pain, prior cardiac history, no blood in stools.

- Patient was not on any medication except for mRNA COVID-19 vaccine that he received 2 weeks ago.
- On arrival, all vital signs were stable, and lab works showed as follows:
  - Hemoglobin: 5.7 g/dl
  - WBC: 17,000/uI
  - Platelet count: 400,000/uI
  - Reticcount: 16.51
  - LDH: 658
  - Direct Coombs' test: positive
  - DAT: 2+
  - Anti IgG: 2+
- Iron panel was non-suggestive of iron deficiency anemia. All these findings were suggestive of Warm AIHA.
- Case was discussed with Hematology and working diagnosis was either lymphoproliferative or paraneoplastic syndrome. Absence of any lymphocytosis and negative CT scan of chest/abdomen/pelvis for any evidence of malignancy ruled out both possibilities.
- Patient was started on IV methylprednisone, IV iron, vitamin B12. Patient received 2 units

of cross-matched blood.

- After ruling out both aforementioned possibilities, recent COVID-19 vaccination appeared to be the causative etiology for AIHA.
- Patient responded well to IV methylprednisone and Hgb remained stable around 8.5 g/dL. Patient was discharged with tapering oral prednisone and followed up with outpatient Hematology.
- Currently patient undergoes monthly lab work and the last Hgb was stable at 13 g/dl.

## Discussion

- Warm AIHA is the most common type of autoimmune hemolytic anemia. Autoimmune, infectious, lymphoproliferative, and immunodeficiency disorders should be ruled out in these patients before suspecting it as vaccine-induced.
- Given widespread immunization with the COVID-19 vaccine, physicians need to be aware of AIHA as a potential adverse effect.
- Corticosteroids are the mainstay treatment for AIHA.