WARM AUTOIMMUNE HEMOLYTIC ANEMIA AND BABESIOSIS – a rare association or a coincidence

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INTRODUCTION

➢Babesiosis is an intra erythrocytic, protozoan infection commonly due to tick bite. It causes non hemolytic anemia due to intra-erythrocyte infection with hemolysis. The mainstay of treatment is anti microbial agents. Immunocompromised patients require longer course of treatment.

CASE DISCUSSION

➢89-year-old female with history of poorly differentiated carcinoma of Mullerian origin and peritoneal carcinomatosis status post chemotherapy was admitted to the hospital with concerns of fatigue for one week. Her last chemotherapy session was two months prior to the presentation. She had no history of gastrointestinal bleed, hemoptysis, fever. She was found to have cytopenia with Hb 7.1, platelet count 65,000. Hemoglobin further dropped to 5.4 in 24 hours without signs of bleeding. She had evidence of hemolysis with Lactate dehydrogenase level 1023 U/L, haptoglobin significantly decreased to 8 mg/dl, elevated reticulocyte count of 11% and indirect bilirubin level of 1.2 mg/dl. The Direct Anti-globin (COOMBs) test was positive for IGG and complement 3, identifying as warm autoimmune antibody. Peripheral blood smear revealed red blood cell inclusion bodies with rings forms. Serology was positive for Babesia microti. Other serologic tests for Lyme disease, Anaplasmosis, Ehrlichiosis, Malaria were negative. Patient had no recollection of tick bite. She received 3 units of packed red blood cell transfusion during the admission. She was treated with 3 weeks of steroids and 5 weeks of Azithromycin and Atovaquone till the clearance of parasitemia.

COURSE

Patient admitted for fatigue

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Presented with Hb 7.1 and platelet 65000

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Hb further dropped to 5.4 in 24 hours without signs of bleeding

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Elevated levels of LDH, haptoglobin , reticulocytre count. **Positive Direct antiglobalization test.**

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Serology positive for **Babesia microti**

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Transfused 3 units PRBC

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Treated with Ativaquone and Azithromycin

DISCUSSION

Warm autoimmune hemolytic anemia (WAHA) in patients with Babesiosis have been reported in patients with splenectomy; with some case reports of post babesiosis warm autoimmune hemolytic syndrome. Pathogenesis is unclear, although immune complex mediated and type III hypersensitivity reaction have been suggested. We describe a rare case of Babesiosis in an immunocompromised patient without asplenia developing WAHA. Such patients need to be started on steroids and treat

DISCUSSION

Autoimmune hemolytic anemia in human Babesiosis is rare. Babesiosis usually causes non autoimmune hemolytic anemia due to intra-erythrocyte infection.

GUTHRIE