Learning Objectives

Case Description

A 61-year-old woman with a history of breast cancer, dilated cardiomyopathy, hypothyroidism and pancreatic cyst requiring a splenectomy presented to the emergency department with 2 weeks of myalgias, abdominal pain, intermittent fevers to 102°F and 2 days of hematuria. She was already being treated with Augmentin for presumed Lyme disease after presenting with an annular rash 2 weeks prior. She had reported a prior intolerance to doxycycline.

In the ED of an outside hospital she had positive serologies for Babesia microti and a positive IgM/ IgG Lyme. Labs upon transfer to YNHH.

In high-risk patients, such as those with asplenia, it is important to test for and recognize tick related co-infections as high as 10-15%.

Co-infections of Lyme and other tick borne illnesses can be as high as 10-15%.

Table 2 – Recommended Treatment for Babesiosis per CDC

Complications:

- Half of the patients hospitalized with babesiosis develop ARDS requiring MICU stay.
- 34% higher mortality rate amongst those who develop ARDS
- Severe anemia
- Heart Failure
- Renal Failure
- Septic shock
- DIC
- Coma

Learning Points

In high-risk patients, such as those with asplenia, it is important to test for and recognize tick related co-infections early, particularly in endemic regions.

Testing for co-infection of additional tick borne diseases in an asplenic patient when there is already a high suspicion for Lyme disease may lead to earlier treatment and less complications.

Day 1 – Lab Medicine and Infectious Disease Consulted
- Patient required urgent 10u RBC exchange
- Treated with clindamycin/quinine (for babesia), doxycycline (for lyme)
- with new oxygen requirement

Day 2 – Worsening hypoxemia
- Started on vanco/cefazil
- Babesia Quant down trending

Day 3-4 – Hypoxic Respiratory Failure
- Transferred to MICU
- Babesia Quant Uptrending again
- Given additional 8u RBC exchange
- Patient w/ tinnitus, Quinine discontinued, atovaquone and azithromycin started

Day 5 – Intubated
- Worsening hypoxemia, SpO2 60-70s
- placed on ARDSnet protocol
- Given steroids

Day 6-12
- Exubated
- Azithromycin discontinued due to QTc prolongation
- placed on ARDSnet protocol
- Given steroids
- Anaplasma PCR negative
- Discharged on 3 weeks of clindamycin and atovaquone

Risk Factors for Severe Babesiosis in Adults

- Age >50
- Asplenia
- Malignancy
- HIV
- Immunosuppressive medications

This patient had three risk factors, increasing her risk significantly. associated with severe anemia (Hg <10g/dL)

- Patients with significant risk factors should have early co-infection testing performed.

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