



Pediatric Rheumatology Online Journal

September - October

FELLOW'S CHALLENGE

Presentation: A 13 year old white male presented to a local hospital with a six-month history of weight loss, low-grade fevers, fatigue and weakness. In the emergency room, he was found to be markedly anemic with a hemoglobin of 5 grams. He was admitted for further evaluation.

History:

- Past history was notable recurrent sores on his lips and inside his nose. He had one bout of pneumonia 18 months ago. He has had poor dentition and gingivitis for years. He has a mild cognitive delay. He has had no previous hospitalizations.
- Review of systems was negative for rash, joint pain/swelling, chest pain, shortness of breath, visual complaints, Raynaud's, headaches.
- Family history revealed an ill-defined rheumatologic disease in his mother. His younger brother was healthy. Father's medical history was unknown

Inpatient Work-up:

- **Labs:** - ANA; +Coombs (+IgG Ab, - C₃); Retic count 12%; Platelet 180,000
WBC 11,500 with 86% segs, 2% bands, 10% lymphs
ESR > 140; CRP 15 (normal < 0.5)
normal urinalysis; SGPT 87; normal PT/PTT;
ID evaluation revealed negative blood cultures for bacteria/fungus and studies for
Cryptococcosis and Blastomycosis; HIV - negative
- **Imaging studies:**
CT of chest: small scattered nodules in both lungs and adenopathy
CT of abdomen: hepatomegaly with multiple liver nodules and a small amount of peritoneal fluid.
Bone scan: Osteolytic lesions, including by pubic ramus, left hip and skull
- **Pathology:**
Bone marrow/biopsy: negative for malignant cells.
Liver nodule: Granulomatous lesion. No organisms seen

Which of the following laboratory findings do you think will be present in this patient?

- A. Positive anti-neutrophil cytoplasmic antibody (ANCA)
- B. Depressed quantitative immunoglobulins
- C. Elevated angiotensin converting enzyme (ACE) level
- D. CARD15/NOD2 gene mutation
- E. Histoplasma capsulatum antigen