

Episode 20

In this week's episode of the CPSers, Dr. Tom Goslinga presents a clinical unknown to Dr. Bob Centor.

Problem Representation

A 56-year-old man from rural Indiana with ankylosing spondylitis on an IL-17 inhibitor presented with subacute watery diarrhea, diffuse abdominal pain, and oral ulcers with a recent colonoscopy demonstrating noncaseating granulomas concerning for crohn's disease, found to have hypercalcemia and calcified pulmonary nodules on chest imaging.

Schemas

Dr. Centor took us back to episodes 7 & 8, reminding us to use an endocrinologic approach when evaluating hypercalcemia.

Diagnosis

Reexamination of the colonic biopsies revealed budding yeast and the *Histoplasma* urine antigen test was positive, confirming a diagnosis of disseminated Histoplasmosis!

Teaching points

- A number of conditions can mimic¹ inflammatory bowel disease, including drug-induced colitis, infectious colitis, monogenic disorders (most commonly in children), and (occasionally) ischemic colitis. Intestinal tuberculosis² is a notorious mimicker of crohn's disease, as it shares a predilection for the ileocecal region and has granulomas on histopathology.
- *Histoplasma capsulatum* is a dimorphic fungus most commonly found in North and Central America. It is endemic to the Mississippi and Ohio River Valleys, where a large portion of the population demonstrates evidence of prior asymptomatic or subclinical infection.
- The clinical manifestations of histoplasmosis³ depend largely on the *immune* status of the host.
 - **Pulmonary infections** occur in *immunocompetent* patients and typically are self-limited, sometimes associated with arthralgias and cutaneous findings (E nodosum, E multiforme). Mediastinal fibrosis is a potentially lethal complication.
 - **Disseminated infection** occurs in patients with *impaired cellular immunity*. Common manifestations include constitutional symptoms, GI involvement (colitis, ileitis), hepatosplenomegaly, infiltration of the bone marrow, and ARDS. Rarely it can present with CNS involvement or as culture-negative endocarditis.

Clinical Reasoning Pearl

A number of cognitive biases⁴ can lead to errors in our clinical decisions and reasoning. This can be combatted by *questioning* different aspects of the patient's presentation or past medical history.

For example:

By questioning the diagnosis of crohn's disease, Dr. Centor began to consider infectious etiologies like Histoplasmosis.

References

1. Louis E. When it is not inflammatory bowel disease: differential diagnosis. *Curr Opin Gastroenterol*. 2015 Jul;31(4):283-9.
2. Yajnik V, McDermott S, Khalili H, Everett JM. CASE RECORDS of the MASSACHUSETTS GENERAL HOSPITAL. Case 7-2016. An 80-Year-Old Man with Weight Loss, Abdominal Pain, Diarrhea, and an Ileocecal Mass. *N Engl J Med*. 2016 Mar 10;374(10):970-9.
3. Kauffman CA. Histoplasmosis: a clinical and laboratory update. *Clin Microbiol Rev*. 2007 Jan;20(1):115-32.
4. Wellbery C. Flaws in clinical reasoning: a common cause of diagnostic error. *Am Fam Physician*. 2011 Nov 1;84(9):1042-8.