Ileocecal valve tuberculosis in setting of terminal ileitis in patient with septic shock and pneumonia

Lisa Kurth MD
Lehigh Valley Health Network, Lisa.Kurth@lvhn.org

Daniel Latta MD
Lehigh Valley Health Network, Daniel.Latta@lvhn.org

Giovanni Bonomo MD
Lehigh Valley Health Network, giovanni.bonomo@lvhn.org

John S. Park MD
Lehigh Valley Health Network, John_S.Park@lvhn.org

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Ileocecal Valve Tuberculosis in Setting of Terminal Ileitis in Patient With Septic Shock and Pneumonia

Lisa Kurth, MD, Daniel Latta, MD, Giovanni Bonomo, MD, John Park, MD

Department of Surgery – Colon and Rectal Surgery, Lehigh Valley Health Network, Allentown, PA

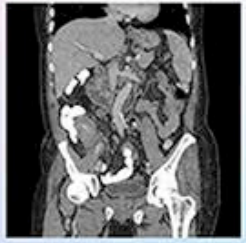
Purpose

Ileitis, defined as inflammation of the ileum, is often most concerning for a diagnosis of Crohns' disease in patients. Less common diagnoses include malignancy, drug reactions, infectious, or systemic inflammatory processes. Additionally, patients in septic shock can present with ischemic ileitis given episodic hypotension. The purpose of this case study is to highlight an unusual presentation of terminal ileitis.

Background

A 79-year-old male presented to our hospital after being found at home with altered mental status of unclear etiology. He had a past medical history of seizures, migraines and a heller myotomy for achalasia.

He was worked up for septic shock requiring resuscitation and pressors. A CT scan of abdomen and pelvis demonstrated a multi-lobar pneumonia in addition to terminal ileitis. He was started on cefepime, metronidazole, vancomycin and azithromycin for presumed health care acquired pneumonia HCAP . Blood cultures were then positive for clostridium paraputrificum bacteremia for which he was narrowed to a short course of metronidazole.



CT scan scan demonstrating terminal ileitis in setting of septic shock

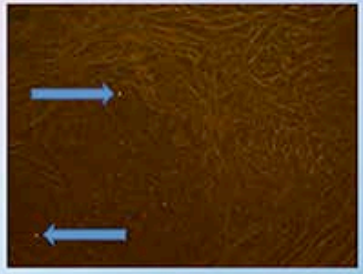
Methods and Interventions

He underwent a colonoscopy, which demonstrated erythema and ulceration at the ileocecal valve with concern for an abnormal mass like appearance. Biopsies were taken that demonstrated active chronic non-necrotizing granulomatous inflammation and pyloric glandular metaplasia suggestive of Crohn's disease or infectious etiology. CEA was normal.

The patient underwent single site laparoscopic ileocolectomy, during which we noted significant right lower quadrant inflammation, dense lymphadenopathy, and mesenteric inflammation. A palpable ileocecal mass was noted extending approximately 15 cm to the terminal ileum, with an additional ileal mass noted about 30 cm proximally. Both areas were included in the resection specimen, which was sent to pathology.

Results and Outcomes

The patient had an unremarkable hospital course and was discharged home without issue on post-operative day 5. Pathology demonstrated necrotizing and non-necrotizing granulomatous inflammation extensively and transmurally involving the ileum, ileocecal valve, and right colon with rare mycobacterial organisms compatible with mycobacterial ileitis/colitis. Based on this finding, the patient was readmitted for further evaluation. He underwent a bronchoalveolar lavage. His quantiferon tb was positive. His case was reviewed at the infectious disease conference and the patient was treated for tuberculosis with a combination of rifampin, pyrazinamide, ethambutol and isoniazid. His sputum cultures eventually grew acid fast bacilli after one month. He is currently doing well without respiratory or bowel complaints. He has followed up with his primary care physician without further concerns.



Auramine-rhodamine stain with rare positive mycobacterial organisms. Courtesy of the Lehigh Valley Health Network Department of Pathology.

Discussion

We describe a complex presentation of intestinal tuberculosis. The patient's original presentation in septic shock with concern for multifocal pneumonia led to low suspicion for a gastrointestinal source. His blood cultures were pivotal in shifting the focus of his care onto what appeared to be a malignant mass in his terminal ileum. This patient benefitted from the multidisciplinary approach including our infectious disease colleagues' work in remaining actively involved. His source of septic shock was then considered more likely bacterial translocation due to his intestinal illness. His history of achalasia and seizures may have led him having aspiration pneumonia. Of note, this patient was low risk for tuberculosis exposure.

Conclusion

Ultimately, it is important to maintain a high level of suspicion in patients with uncommon presentations to prevent a delay in diagnosis or treatment of the disease. The potential for devastating public health consequences exist in the unusual cases of terminal ileitis.

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