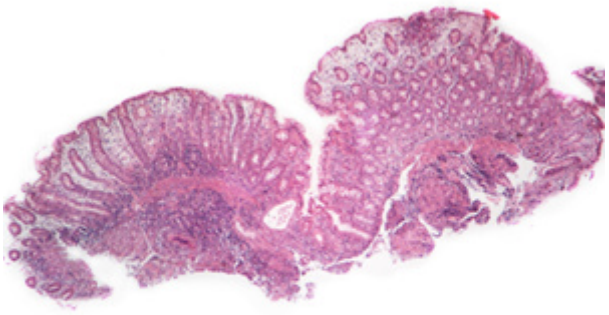
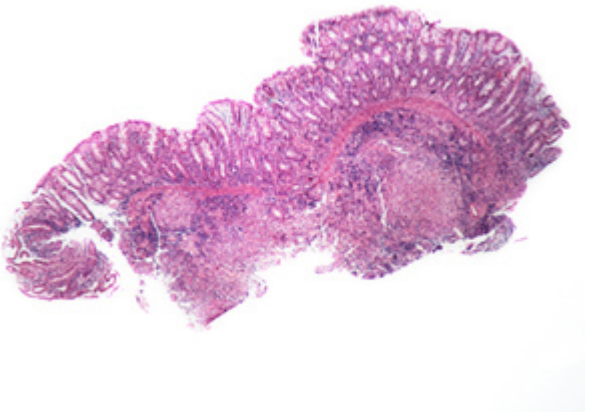
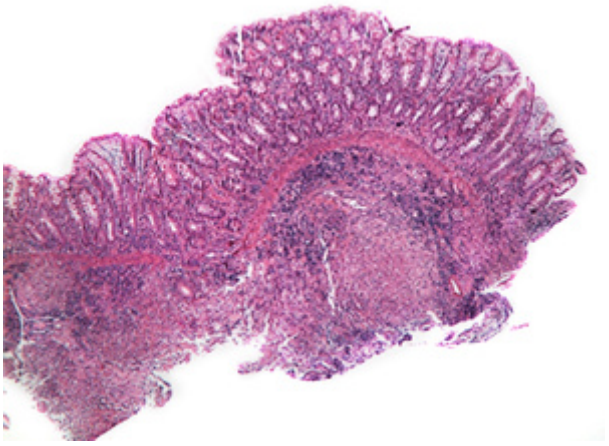
March 2013

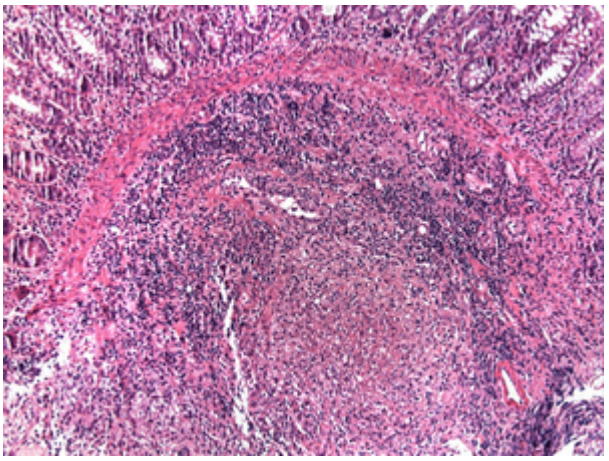
56-year-old male with weight loss and abdominal pain. CT revealed mesenteric adenopathy and ileocecal mass. Endoscopy of ileocecal region showed ulcer, thickened mucosal folds, and mucosal friability.

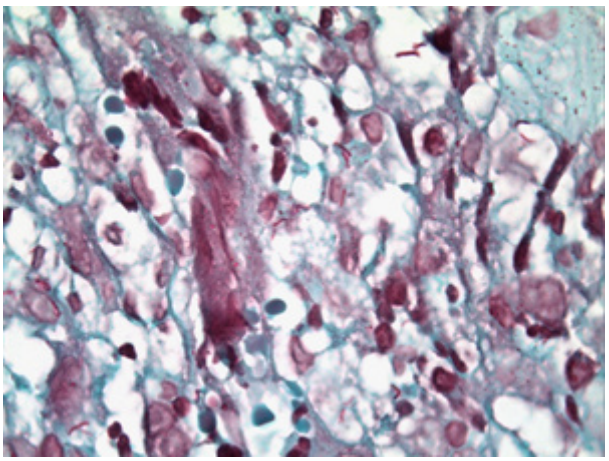
What is your diagnosis?











Diagnosis

Colonic Mycobacterium tuberculosis - tuberculous colitis.

Comment

Histology reveals colon mucosa with ulcer, focally active inflammation and mild alteration in mucosal architecture. Low-magnification photograph shows submucosal necrotizing granulomas surrounded with lymphocyte rich inflammatory cells. Acid-fast stain (Z-Neelsen staining) demonstrates the positively stained basils within the granulomas.

Tuberculosis (TBc) is a segmental disease that most commonly involves the ileocecal region, but the remainder of the colon may also be involved. The ileocecal region is affected in 90% of cases; other affected segments are ascending colon, appendix, jejunum, duodenum, stomach, sigmoid, and rectum, respectively. The ileocecal valve is often deformed. Additionally, multiple and segmental lesions with skip areas are common macroscopic findings. Circumferential and transverse ulcers and strictures can be seen. In M. tuberculosis infection, the characteristic histologic lesions are caseating granulomas which may be seen at any level of the gut. However, it should be kept in mind that non-caseating granulomas do not exclude the diagnosis of TBc. Granulomas in M. tuberculosis infection are often confluent, with a rim of lymphocytes at the periphery. Granulomas can be hyalinised and calcified. Aphthoid ulcers or frank ulceration can be seen as well. Acid-fast stains may demonstrate the microorganisms, but culture or PCR assays may also be helpful. Differential diagnosis of ileocecal tuberculous colitis includes Crohn’s Disease (CD) and Yersinia infection because these diseases tend to involve ileocecal region and produce granulomatous colitis with strictures, fistulae, tumour-like mass, and aphthoid ulcers. The granulomas of Yersiniosis are typically non-caseating. Differential diagnosis of CD can be difficult; features favouring CD are linear rather than circumferential ulcers, transmural lymphoid aggregates, fissures, and deep fistulas.

For further reading

- Nagata N, Shimbo T, Sekine T, et al. Combined endoscopy, aspiration, and biopsy analysis for identifying infectious colitis in patients with ileocecal ulcers. Clin Gastroenterol Hepatol. 2013 doi: 10.1016/j.cgh.2012.12.034.
- Odze R. Diagnostic problems and advances in inflammatory bowel disease. Mod Pathol. 2003 16: 347-58.

Presented by

Dr. Berna Savaş, Ankara, Turkey