



Mycobacterium Gordonae Infection Presenting as Appendiceal Mass



Dongguang Wei¹, Maria M.M. Taylor² Dorina Gui¹

1. Department of Pathology and Laboratory Medicine, University of California, Davis Medical Center, Sacramento, CA 95817
2. University of California, School of Medicine, Sacramento, CA 95817

Introduction:

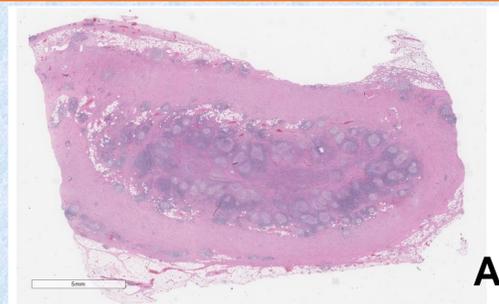
The nontuberculous mycobacteria are recognized as occasional human pathogens. *Mycobacterium gordonae* is believed to be one of the least pathogenic of this class. We present a case of *Mycobacterium Gordonae* infection presenting as an appendiceal mass.

Case features:

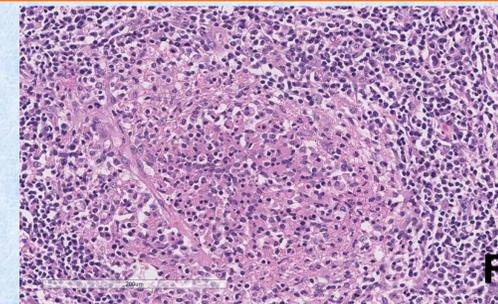
The patient is a 50-year-old man presenting with abdominal pain. An abdominal CT demonstrated a dilated appendix with adjacent fat stranding and reactive lymphadenopathy concerning for appendiceal malignancy versus acute appendicitis.

Results:

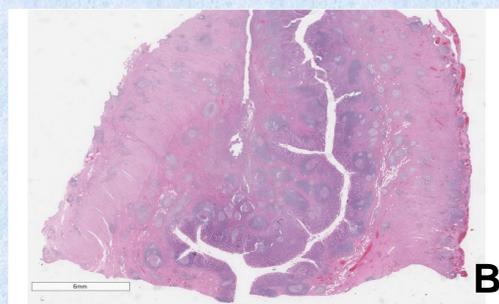
Histological examination revealed appendix with acute inflammation, extensive granulomatous change (A-D), and significant granulomatous lymphadenopathy (E-F). Some of the granulomata show central necrosis and neutrophil aggregates. No features of malignancy were seen. An infectious etiology was favored. The following special stains were performed on tissue slides (G-J): Gram, Steiner, Acid Fast, GMS and showed no AFB positive mycobacteria or fungal organisms. Various cultures, serologies/titers, and 16s/18s ribosomal PCR were performed. *Mycobacterium Gordonae* DNA was detected via the PCR method.



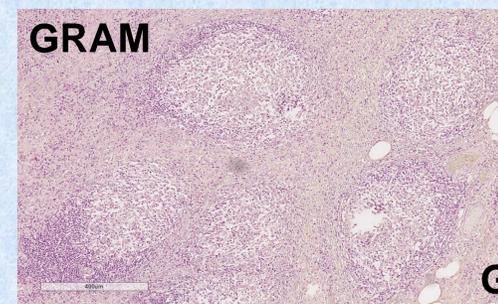
A



F

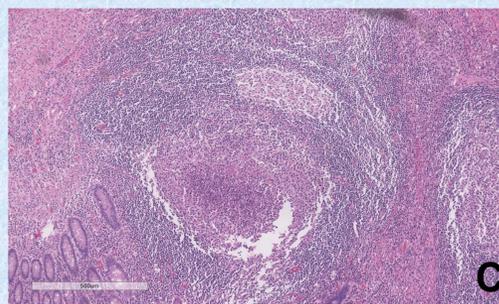


B

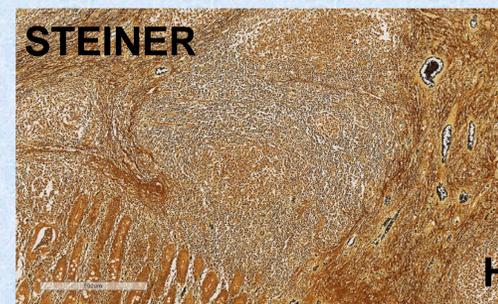


GRAM

G

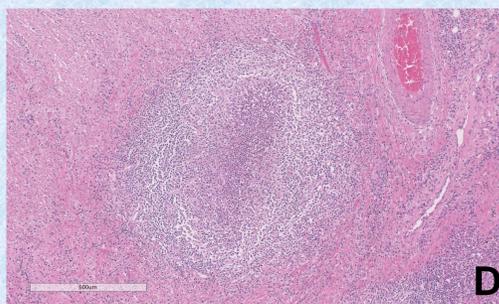


C

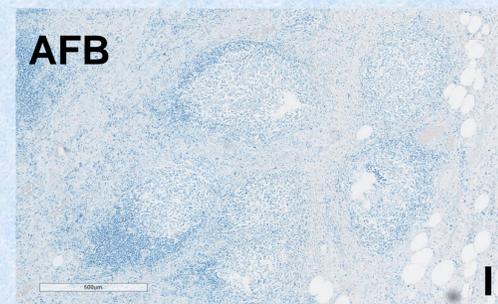


STEINER

H

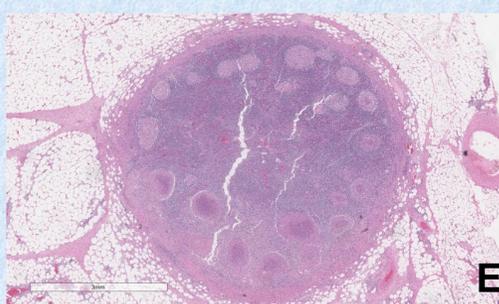


D

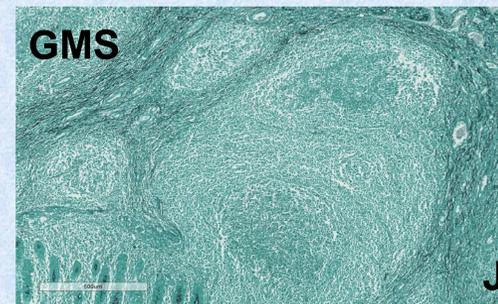


AFB

I



E



GMS

J

Discussion:

Recognizing histopathological features of infectious granulomatous appendicitis is important for early therapy and improving patient care:

- Tuberculosis shows characteristic caseation and necrotizing granulomas.
- *Yersinia* infections show cryptitis, necrotic stellate abscesses in bowel wall, deep, penetrating ulceration, epithelioid granulomas, and involves mesenteric lymph nodes with lymphoid and histiocytic hyperplasia.
- *Mycobacterium avium-intracellulare* usually involves immunocompromised/elderly patients, it expands the lamina propria with lymphohistiocytic infiltrate, mesenteric lymph nodes are usually not involved.
- *Bartonella henselae*, may show necrotizing granulomas in liver with neutrophils, however, appendix is usually not involved.

The routine biopsy or incisional drainage should be avoided for nontuberculous mycobacteria lymphadenitis. The treatment of choice is excision of involved nodes by experienced surgeon. In our case, hemicolectomy with associated mesenteric lymph nodes was a curative treatment.

Conclusion:

Mycobacterium gordonae could be a rare clinically significant pathogen, not just specimen contaminant.