

Peritoneal tuberculosis

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■ Cite as: *CMAJ* 2021 November 1;193:E1664. doi: 10.1503/cmaj.210355

A 66-year-old previously healthy woman presented to hospital with 1 month of malaise, abdominal swelling and early satiety. She had immigrated from the Philippines 40 years before and had previous exposure to tuberculosis (TB) and a positive interferon- γ release assay. Examination using abdominal computed tomography found ascites and omental nodularity.

Diagnostic paracentesis showed lymphocyte-predominant ascites with a low serum-ascites albumin gradient, negative for malignant cells. Stains were negative for acid-fast bacilli, and culture results were negative for mycobacteria. We performed diagnostic laparoscopy, which showed that the patient's parietal and visceral peritoneum were studded with white deposits, in keeping with peritoneal TB (Figure 1A). Peritoneal biopsy samples showed noncaseating granulomas and were culture-positive for pan-sensitive *Mycobacterium tuberculosis* complex (Figure 1B) although negative for organisms. After treatment with appropriate antibiotics, the patient's clinical condition improved. We reported the case to the public health office for contact tracing.

The incidence of active TB infection in Canada is 4.9/100 000.¹ Risk factors for infection include immunosuppression, contact with known or suspected cases, travel to or immigration from endemic countries, or living in communities with a high prevalence of TB.¹ Eighty percent of people with TB have pulmonary involvement; isolated peritoneal TB occurs in only 1% of cases.^{2,3} The diagnosis is challenging because acid-fast bacilli staining and mycobacterial culture of ascitic fluid can have sensitivities as low as 3% or less and 20% or less, respectively.⁴⁻⁶ Mycobacterial culture from peritoneal biopsy is the diagnostic gold standard. In conjunction with histology, laparoscopic examination has sensitivities and specificities greater than 90%.⁵ Peritoneal tuberculosis should be considered in the differential diagnosis of ascites with a low serum-ascites albumin gradient with lymphocytosis in patients with risk factors or known latent infection.

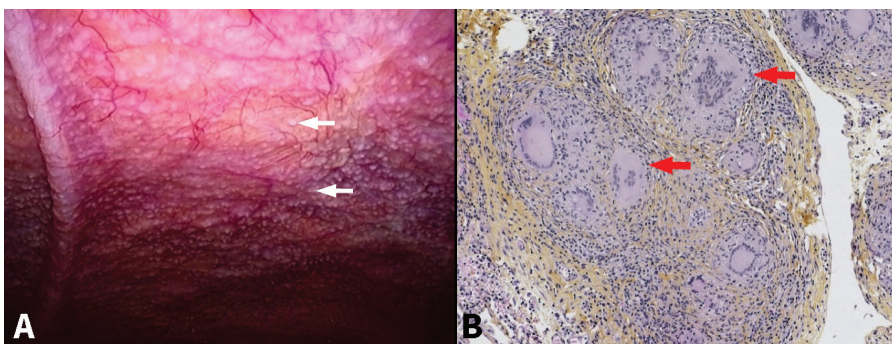


Figure 1: Laparoscopic findings in a 66-year-old woman with peritoneal tuberculosis. (A) Photograph showing white tubercular deposits (white arrows) on the parietal peritoneum. (B) Microscopy of peritoneal biopsy sample showing numerous non-necrotizing granulomas (red arrows). Hematoxylin phloxine saffron stain. Original magnification $\times 100$.

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Competing interests: None declared.

This article has been peer reviewed.

The authors have obtained patient consent.

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