

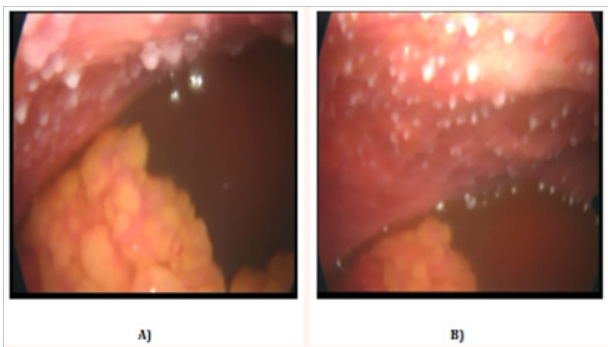
# A mystery: tuberculous peritonitis

## Introduction

Tuberculosis (TB) is a common and major health problem especially in developing countries.<sup>1</sup> Tuberculous peritonitis (TBP) is an uncommon presentation of TB without any other debilitating diseases such as cirrhosis, diabetes and chronic renal failure on continuous ambulatory peritoneal dialysis.<sup>2</sup>

## Case report

A 49-year old woman was referred to our department with weight loss and abdominal pain. Abdominal ultrasound examination confirmed the presence of ascites but there was no organomegaly or mass detected. Serum ascites albumin gradient was 0.6. Ascitic fluid cell count was 10/mm<sup>3</sup>, predominantly lymphocytes. Ascitic fluid cytological analysis did not help the diagnosis. Her further diagnostic procedures including esophagogastroduodenoscopy, colonoscopy, gynecological examination were normal. The chest and abdomen computed tomographic scan revealed only the presence of gross ascitic fluid. Serum CA 125 level was 336u/ml(0-35). Ascitic fluid ADA level was 47.26U/L (0-40). Albeit the tests done we did not find the etiology of the ascites and decided to do laparoscopic examination. In the laparoscopic examination, large macro- and micro-nodular degeneration of the visceral and parietal peritoneum with the presence of white plaques and omental thickening was seen (Figure 1).



**Figure 1** Laparoscopic image of our case. Multiple white miliary nodules are seen on the parietal peritoneum.

Histological examination of the peritoneal biopsies showed epithelial granuloma with the presence of Langhans-type giant cells and a wide area of caseous necrosis, but without acid-fast bacilli. *M. tuberculosis* PCR (Polymerase Chain Reaction), performed in tissue was negative. By the council decision 4-drug regimen of isoniazid, rifampicin, pyrazinamide, and streptomycin was started to patient. After six months a control abdominal ultrasound examination confirmed the absence of ascites.

## Discussion

Tuberculous peritonitis accounts for a small portion of all tuberculous cases, but it has been increasing worldwide, including developed countries. The peritoneum is a relatively common extrapulmonary site for tuberculosis and has diverse and non-specific symptoms. No single test is adequate for the its diagnosis. Peritoneal involvement accounts for 0.1-0.7% of all tuberculous patients.<sup>3</sup>

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Patients with tuberculous peritonitis present insidious nature and nonspecific symptoms that make diagnosis difficult. Also intestinal obstruction or perforation, which may require surgery, rarely occurs in patients with tuberculous peritonitis.<sup>4</sup> Diagnosis of TBP remains an ongoing dilemma requiring a high index of clinical suspicion.<sup>5</sup> Diagnostic laparoscopy or laparotomy is usually necessary for definitive diagnosis.<sup>6-8</sup> The main treatment option for tuberculous peritonitis is pharmacological therapy. The regimens curative for pulmonary tuberculosis are also effective for tuberculous peritonitis. A two months initial phase of isoniazid (INH), rifampicin (RIF), pyrazinamide and ethambutol, followed by the administrations of INH and RIF for another 4 months, may be sufficient in most cases of tuberculous peritonitis. Laparoscopy and peritoneal biopsy are still the most reliable, quick and safe methods for the diagnosis of TBP.

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## Conflicts of Interest

There is no conflict of interest.

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