

Wasting syndrome Ovarian cancer versus peritoneal tuberculosis: A case report

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ABSTRACT

Peritoneal tuberculosis (TB) corresponds to between 1 and 3% of all tuberculosis localizations is greater in developed countries, The diagnosis of peritoneal TB can be a challenge for clinicians, due to nonspecific clinical and laboratory findings, they can present signs and symptoms similar to ovarian cancer, pelvic inflammatory disease as well as peritoneal carcinomatosis.

Multiple cases of patients with ascites, pelvic masses, elevated CA-125 levels, peritoneal implants, mesenteric involvement, and paracentesis without malignant cells without being able to demonstrate the presence of mycobacteria preoperatively have been described, so they are operated on on suspicion of carcinoma of the advanced ovary diagnosing tuberculosis as

A 19-year-old woman was referred by an internist and digestive surgeon with abdominal distension and weight loss. The CT scan of the abdomen showed thickening of the stomach wall with ascites. CA 125 levels raised to 2100 U/mL and the

At first it was addressed as ovarian cancer, laparoscopy was performed with a biopsy sample, concluding peritoneal tuberculosis. antituberculous therapy is started, 2 weeks later patient course with (DILI), with torpid evolution which leads to his death.

The objective of the clinical case is to broaden our medical outlook with differential diagnoses in the face of chronic abdominal pain in women and to remember the importance of early diagnosis, as well as clinical follow-up, for early intervention of adverse effects.

KEYWORDS: advanced ovarian cancer(AOC), Pelvic inflammatory disease (PID), abdominopelvic tuberculosis (TB), Drug induced liver damage (DILI)

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INTRODUCTION

Peritoneal tuberculosis (TB) is an extrapulmonary tuberculosis, which predominantly affects the omentum, intestinal tract, liver, spleen or female genital tract, in addition to the parietal and visceral peritoneum. It occurs in 1-3% of patients with pulmonary TB according to different literatures, is produced by the growth of Koch's bacillus in the peritoneal cavity, due to reactivation of latent tuberculous foci in the peritoneum and hematogenous dissemination of a ruptured contaminated lymph node or by direct dissemination of an abscess in the fallopian tube or intestine. 1,2,3

The classic presentation with insidious systemic symptoms such as asthenia, anorexia, weight loss or fever of unknown origin is exceptional in genital tuberculosis. However,

clinical cases of peritoneal tuberculosis simulating ovarian carcinoma with intra-abdominal masses, ascites, pleural effusion and elevated Ca12 have been described. Peritoneal tuberculosis has a prevalence and incidence of 2:1 males, which makes it a great simulator. 4,5,6

This extrapulmonary TB is very difficult to diagnose due to its nonspecific signs and symptoms, which sometimes leads to gynecologic oncologic diagnoses such as advanced ovarian carcinoma as the first differential diagnosis.

There are several clinical cases in which it has been simulated as ovarian cancer in the presence of signs and symptoms, with the presence of masses that can be simulated as ovarian cancer, including elevated tumor markers such as ca-125 pleural effusion, ascites, and weight loss. 6,7,8

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The clinical approach to a woman with an adnexal mass with positive markers is a common problem in gynecological practice, which is why it is necessary to know the differential diagnoses that share the symptoms of ovarian carcinoma, including genital tuberculosis with peritoneal involvement.^{6,7,8}

When confronted with patients with massive ascites and elevated CA 125 without ovarian enlargement, a gynecologist should think that it may be a case of peritoneal TB versus peritoneal carcinomatosis and the advanced possibility of ovarian cancer as a differential diagnosis, especially in developing countries.^{7,8,9}

Laparoscopy is the best modality for differentiating between peritoneal tuberculosis, peritoneal carcinomatosis and advanced ovarian cancer. The benefits are direct visualization and it may take a biopsy for histological examination.¹⁰

This condition presents an indefinable clinical symptomatology, so that a high index of suspicion is required to establish a routine diagnosis and it can be easily confused with pelvic inflammatory disease or ovarian cancer.¹¹

CLINICAL CASE

Female, 19 years old, psychology undergraduate student, history denies smoking, drug abuse or addiction.

She begins her current condition with chronic abdominal pain of six months of evolution. She goes to her family doctor who refers the patient to treatment for colitis due to stress. She persists with symptoms of asthenia and adynamia, with abrupt weight loss (12kg in 3 months), She goes to the gynecologist for amenorrhea of 4 months of evolution and dull abdominal pain with intensity 3/10 - pain on mobilization of the cervix, cabinet studies are performed in which no alterations are shown, weeks later with melena type bleeding, grade II ascites is added, she begins with alteration of alertness and psychosis,

She was sent to the emergency department, distended abdomen with hepatomegaly, painful on superficial and deep palpation, ascites, poor general condition, tachycardia and tachypnea, constitutional syndrome, vaginal examination with pain on cervical mobilization and bulging pouch of Douglas. A study protocol was initiated with laboratory and laboratory tests.

MATERIALS AND METHODS

Labs on 23/2023: leukocytes 12.1, Hb 12.1 hto 31.10 VGM 89.6 HCM 31 CCMH 34.9 Platelets 128 total bilirubin 1.1, tp

23.9 tpt 0 inr 1.8 glucose 69.9 creatinine 0.7 urea 48.6 chloride 104 k 3.56 sodium 140 CRP (171mg/l), CA-125 of 463.40U/ml, alpha-fetoprotein 3.79ng/ml, CA 19-9 antigen: 8.80 U/ml, carcinoembryonic antigen 1.34 U/ml, HGC beta fraction 0.620mU/nl. positive fecal occult blood was found.

03/15 /23 hb 8.4 htc 24.8 platelets 97 leukocytes 97 leukocytes 22.1 albumin 1.92 glucose 76 urea 40 bun 18.79 creatinine 0.9 total bilirubin 14.91 direct bilirubin 13.38, indirect bilirubin1.53, tgp 20, tgo 101 phosphorus 5.5 calcium 8.1 chlorine 105 potassium 3.12 sodium 146 magnesium1.88, dhl 264

Ultrasound 02/22/23 moderate hepatic steatosis, biliary sludge, free fluid in abdominal cavity.

CT showed hepatomegaly, ascites, bilateral pleural effusion predominantly on the left, with free abdominal fluid subdiaphragmatic, in the right inter-asa slide and in the periuterine spaces; the peritoneal fluid showed irregular fibrinoid septa, and the uterus showed preserved dimensions.(Figure 1).

The myometrium was found to be diffusely heterogeneous, and the endometrium was found to be central, with the presence of an intrauterine device. Irregular tubular images of echogenic border with semiliquid content and complex morphological appearance compatible with chronic pelvic inflammatory process, with periadnexal and periuterine adhesions were observed. The findings described in the adnexal situation associated with peritoneal free fluid and bilateral pleural effusion evidenced Meigs syndrome considering as first diagnostic possibility tumors of the sexual-stromal cord (to consider peritoneal carcinomatosis) or epithelial.

Histopathological study of peritoneal lavage fluid: January 25, 2023:

The cellularity consists of scarce reactive mesothelial cells alternating with abundant macrophages and lymphocytes.

Diagnostic interpretation: Compatible with granulomatous peritonitis. No evidence of neoplastic cells.

Histopathological study: biopsy of parietal peritoneum January 25, 2023

Histological sections show fibroadipose tissue replaced by granulomatous inflammatory infiltrate associated with caseous necrosis, the giant cells are of langhans type (Figure 2). Histochemical stains are performed in which few acid fast bacilli are identified (Figure 3). Conclusion: Biopsies of parietal peritoneum: - peritoneal tuberculosis.

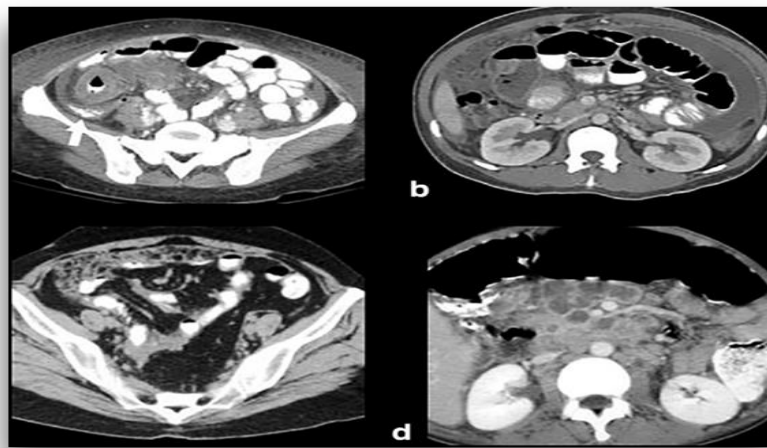


Figure 1. CT scan showing hepatomegaly, ascites, bilateral pleural effusion and free fluid.

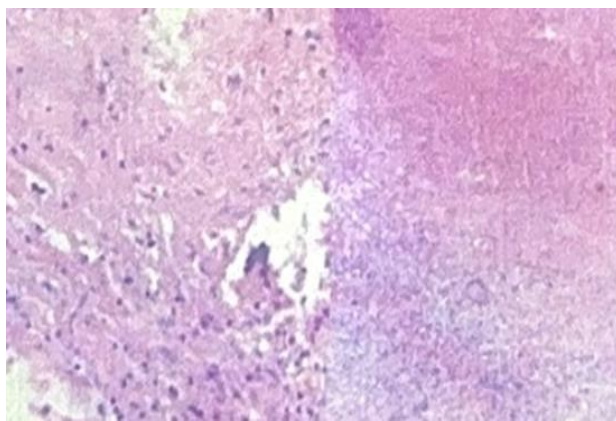


Figure 2. Fibroadipose tissue replaced by granulomatous inflammatory infiltrate associated with caseous necrosis, langhans giant cells.

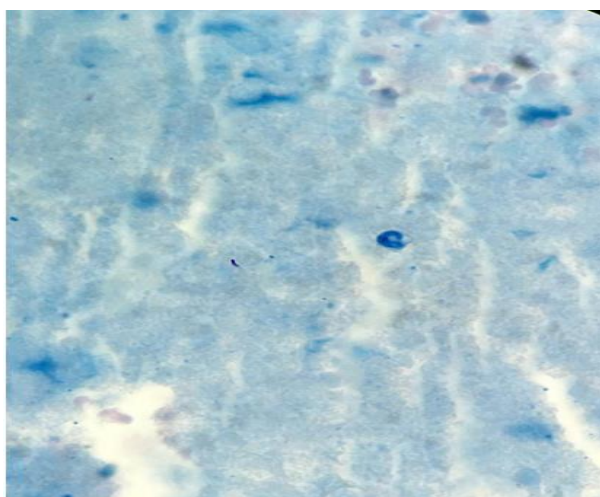


Figure 3. Acid-fast bacillus

In view of these findings, the patient was sent to the Gynecology Department, where the intrauterine device was removed with abundant purulent and foul-smelling material coming out. In view of the suspicion of pelvic inflammatory disease, a laparotomy with median incision was performed, finding frozen pelvis with presence of miliary seeding,

peritoneal cavity covered by miliary nodules, with loss of surgical planes and impossibility to visualize the uterus and adnexa. Biopsies of the abdominal wall were obtained by the Oncology Service, and the surgical procedure was concluded. The definitive histopathological report showed chronic granulomatous inflammation in the abdominal wall, and the diagnosis was peritoneal tuberculosis without signs of malignancy. An antifungal treatment was started, with adequate evolution of the patient, who was discharged to the Infectious Diseases Therapy Service for further treatment. Two weeks later, the patient presented with drug-induced liver damage (DILI), with a torpid evolution which led to her death.

CONCLUSION

The clinical approach to a woman with an adnexal mass with positive markers is a common problem in gynecological practice, which is why it is necessary to know the differential diagnoses that share the symptomatology of ovarian carcinoma, including genital tuberculosis with peritoneal involvement.

Despite WHO eradication campaigns, tuberculosis is still considered a serious public health problem in developing areas. It has an indefinable clinical symptomatology, so that a high index of suspicion is required to establish a routine diagnosis and it can be easily confused with any disease in the case of abdominal pain with pelvic inflammatory disease or ovarian cancer. Only 30% of patients with pelvic-genital tuberculosis report a history of disease and only 27% have a positive Mantoux test (which has a sensitivity of more than 55%). Positive culture for *Mycobacterium tuberculosis* can vary from 20% to 80%, and ascitic fluid culture has very low sensitivity: 33% of cases are positive and 68% only when intentionally sought. Peritoneal tuberculosis is an infrequent manifestation of this common infection worldwide, accounting for less than 1% of all cases.

Peritoneal thickening is associated with all three subtypes of peritoneal tuberculosis, which simulates malignancy,

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although it tends to be smoother and more uniform than most cases of carcinomatosis, has been classified into three subtypes on CT, with significant overlap: (1) the wet ascitic type (most common), associated with abundant free or loculated ascites of high attenuation; (2) the fixed fibrotic type (least common), associated with mesenteric involvement, as well as intestinal adhesions; and (3) the dry-plastic type (least common), characterized by dense fibrotic peritoneal thickening, associated with adhesions and caseous nodules. Atypical bacterial infections that may simulate peritoneal carcinomatosis.

The diagnosis of peritoneal TB can be challenging for physicians and obstetricians and gynecologists due to nonspecific clinical and laboratory findings. Patients may present with signs and symptoms similar to ovarian cancer or peritoneal carcinomatosis, the clinical presentation is often highly indicative of a neoplastic process, which is why this differential diagnosis needs to be considered.

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