

Disseminated Peritoneal Tuberculosis with Elevated CA 125 Mimicking Ovarian Carcinoma

Sir,

A 41-year-old female presented to the surgical oncology outpatient department with the complaints of abdominal distension and loss of appetite for the past 6 months. She had no medical comorbidities and having no family history of cancer. She had no other prodromal symptoms. Clinically, she had gross ascites with no supraclavicular and inguinal lymphadenopathy. Contrast-enhanced computed tomography of the abdomen, and pelvis showed gross ascites, omental thickening, and ill-defined bilateral bulky adnexa [Figure 1]. Her serum CA 125 was 140 units/ml (normal: 0–35 units/ml). Germ cell tumor markers were within the normal range. The patient was planned for staging laparotomy with primary cytoreduction surgery after discussion in a multidisciplinary tumor board. After exploration laparotomy, gross ascites, small bowel cocoon, omental cake with diffuse peritoneal tubercle deposits, and phlegmon were noted [Figure 2]. Based on intra-operative findings, ascitic fluid cytology and excision biopsy of bowel serosa and parietal peritoneal deposits were performed. The definitive planned surgery was deferred, because of strong clinical suspicion of Koch's abdomen. Ascitic fluid cytology showed few reactive mesothelial cells along with lymphocytes and polymorphs. Histopathologic examination of tubercle deposits revealed multiple necrotizing epithelioid cell granuloma with Langerhans giant cells, features suggestive of tuberculosis (TB). However, the tissue showed a negative stain for acid-fast bacilli. The patient responded well with antitubercular medications. She is asymptomatic and disease-free until the last follow-up after 11 months of presentation.

Ovarian carcinoma is characteristically considered in a female patient with ascites, elevated CA 125, peritoneal deposits, and complex adnexal masses. Symptoms such as weight loss, reduced appetite, abdominal distension, and dull abdominal pain are common to both peritoneal TB and ovarian cancer.^[1] However, CA125 levels lack specificity, with elevated levels in both benign and malignant diseases, including peritoneal TB.^[2] Ascitic fluid adenosine deaminase levels and polymerase chain reaction can aid in clinching the diagnosis. Peritoneal or omental thickening, caked omentum, dense ascites, visceral scalloping are common imaging findings in both of these mentioned clinical entities.^[3] Diagnostic laparoscopy or exploratory laparotomy with frozen section/routine tissue histopathological examination avoid extensive surgery in suspicious cases of peritoneal TB. The clinicians should be vigilant about the simulative clinical behavior of peritoneal TB to ovarian carcinoma, particularly in high prevalent low-middle income countries and immigrant populations.

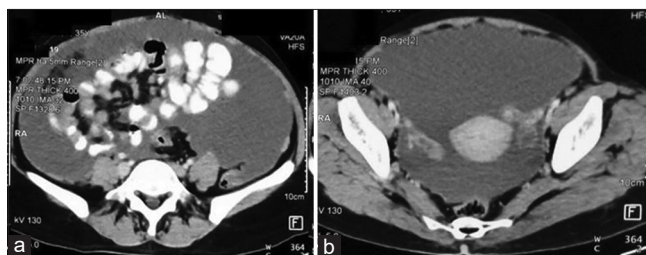


Figure 1: Contrast-enhanced computed tomography scan of the abdomen and pelvis showing (a) gross ascites and omental thickening (yellow arrow) (b) ill-defined heterogeneous lesions of bilateral adnexa (red arrows). These findings with raised serum CA125 could misdiagnose advanced ovarian malignancy

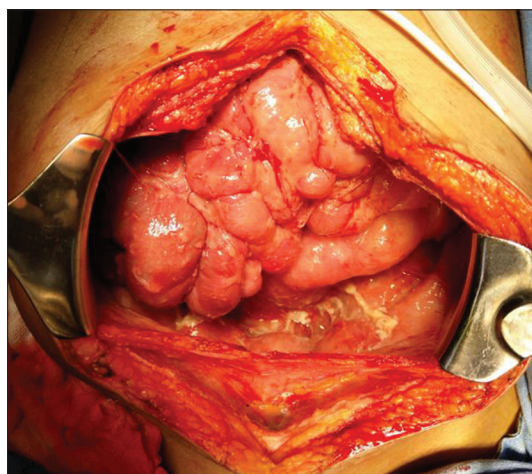


Figure 2: Intra-operative image showing conglomerated small bowel loops (cocoon) with peritoneal tubercles and phlegmon (black arrows). Diagnostic laparoscopy may be disastrous because of the chance of iatrogenic bowel perforation. Mini laparotomy with biopsy and histopathological examination could be the best option as other investigations such as erythrocyte sedimentation rate, tuberculin test, or serum adenosine deaminase may mislead the diagnosis

In conclusion, abdominopelvic TB should also be considered as a probable diagnosis in premenopausal women with elevated CA125 in TB endemic areas like India. Clinico-radiological findings mimic ovarian malignancies. Mini laparotomy with peritoneal biopsy and histopathological examination are preferred approaches to decrease the complications of the laparoscopic entrance to the abdomen with extensive adhesions abdominopelvic TB. Therefore, these tests should be performed before to rule out peritoneal TB. Radical expansive surgery may be avoided. These patients should be treated by antitubercular treatment with appropriate dosage and duration.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have

given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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References

1. Bagga R, Muthyala T, Saha SC, Gainer S, Saha PK, Srinivasan R, *et al.* Peri and post-menopausal women with

complex adnexal masses, ascites, and raised CA-125: Is it ovarian cancer or tuberculosis? *J Midlife Health* 2016;7:193-6.

2. Moss EL, Hollingworth J, Reynolds TM. The role of CA125 in clinical practice. *J Clin Pathol* 2005;58:308-12.

3. Lee WK, Van Tonder F, Tartaglia CJ, Daga C, Cazzato RL, Duddalwar VA, *et al.* CT appearances of abdominal tuberculosis. *Clin Radiol* 2012;67:596-604.

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