Turk J Gastroenterol 2005; 16 (2): 117-118

LETTERS TO THE EDITOR
EDİTÖRE MEKTUP
Tuberculous peritonitis and elevated serum CA 125 in a patient with chronic renal failure

Kronik böbrek yetmezliği olan bir hastada serumda artmış CA 125 ile seyreden tüberküloz peritonit

To the Editor,

In patients with chronic renal failure, incidence of tuberculosis is much higher than in the general population. We report the case of a 27-year-old woman with chronic renal failure, tuberculous peritonitis and elevated serum CA 125. She had complaints of fever reaching 39°C, fatigue, anorexia, nausea and vomiting for one month. Erythrocyte sedimentation rate was 103 mm/hour and creatinine was 7.4 mg/dl. Serum level of CA 125 was found to be increased to 581 U/ml. Increased echogenicity and decreased dimension of the kidneys, and low-grade splenomegaly and ascites were detected in abdominal ultrasonography. Gynecological pelvic examination was within normal limits. Although the chest X-rays were within normal limits, CT scan of the chest revealed infiltrates of the left lung (Figure 1). Ascitic fluid was exudative and lymphocyte predominance (75%) was detected. Acid-fast bacilli were not identified on microscopic examination of the smear of ascites. Mycobacterium tuberculosis by polymerase chain reaction and BACTEC culture were found negative in ascitic fluid. There were no malignant cells in cytological examination.

Large quantities of ascites in the whole abdomen, splenomegaly, and bilateral renal atrophy were detected in abdominopelvic MR. Therefore, laparoscopy and peritoneal biopsy were performed. Peritoneal nodules were seen macroscopically on peritoneal biopsy. Tubercules and caseous necrosis were detected in microscopic examination. The diagnosis of peritoneal tuberculosis was established. Anti-tuberculous treatment was started with the doses modified for renal failure. With this therapy her condition improved rapidly, and fever and anorexia diminished. One month later, her creatinine level was 2.0 mg/dl and erythrocyte sedimentation rate 50 mm/h, and her CA 125 level had decreased to 220 U/ml.

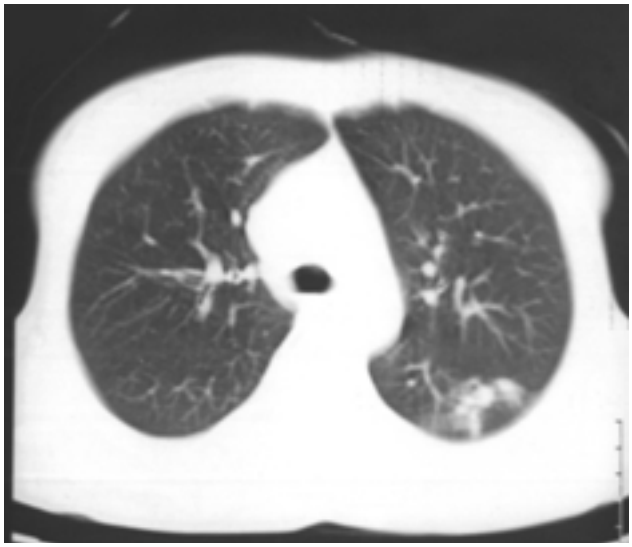

Figure 1. Computed tomography of the chest showing pulmonary infiltrates of the left lung

Tuberculous peritonitis is the most common form of abdominal tuberculosis and involves (alone or in combination) the peritoneal cavity, mesentery and omentum (1). Chronic renal failure is a risk factor

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Manuscript received: 05.02.2004 **Accepted:** 15.03.2005

for tuberculosis. Tuberculous peritonitis is one cause among others that have to be considered in patients with end-stage renal failure and ascites. The patients with chronic renal failure are up to 10-16 times more likely to acquire tuberculosis compared to the general population. This may be due to impaired cellular immunity in patients with chronic renal failure (2). Smears of ascitic fluid for acid-fast bacilli are positive in only 5% of the patients, and cultures are positive in only 20% of the patients (3).

Serum CA 125 levels in patients with tuberculous peritonitis can be as high as in ovarian cancers associated with peritoneal infiltration (4). CA 125 is a glycoprotein secreted by mesothelial cells. Increased serum levels of CA 125 are a useful marker of epithelial ovarian cancer. But increased CA 125 can also be seen in other abdominal and extra-abdominal malignant or benign diseases. It indicates that specificity of CA 125 is low and increased levels just reflect activation of mesothelial cells lining the peritoneum, pleura, or pericardium, whatever the stimulus (2).

Serum CA 125 can be used to monitor the response of disease to anti-tuberculous treatment (5). The possibility of peritoneal tuberculosis should be considered in the differential diagnosis of ovarian carcinoma, especially in female immigrants from countries with a high prevalence of tuberculosis. It is concluded that laparoscopy seems to be a sufficient and safe method to provide diagnosis of tuberculous peritonitis (6).

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