CASE REPORT

OVARIAN MASS WITH BILATERAL MULTIPLE LUNG NODULES SIMULATING METASTASIS: AN ATYPICAL PRESENTATION OF TUBERCULOSIS

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ABSTRACT

Genital TB may present as an abdomino-pelvic mass mimicking ovarian malignancy because clinical and laboratory findings are similar but pulmonary tuberculosis presenting as multiple nodular opacity is very infrequent. Hereby we report a case of tuberculosis in a 53 year old lady, who presented to us with right adnexal mass with multiple different sized lung nodules suggestive of metastasis. According to best of our knowledge this type of case has not been published in standard english literature.

Key words: Tuberculosis, multiple nodular opacity, adnexal mass, metastatic lung nodules

INTRODUCTION

The precise incidence of genital TB cannot be determined with certainty as some cases are asymptomatic and uncovered accidentally during investigation of infertility. The abdomino-pelvic TB can mimic peritoneal carcinosis or ovarian malignancy as it has common symptoms with advanced ovarian carcinoma, including pelvic pain, mass, ascites, and elevated serum CA-125 levels.[1] However multiple pulmonary nodules on a chest radiograph present a challenge to the physician and secondaries in lung is supposed to be the commonest cause. The usual roentgenographic manifestations of pulmonary tuberculosis are parenchymal infiltrations in the apical and posterior segments of upper lobe.[2] But multiple bilateral nodules in tuberculosis are unusual roentgenographic presentation.[3] We hereby report a case of tuberculosis in a 53 year lady, who presented to us with right adnexal mass with multiple different sized lung nodules suggestive of metastasis.

CASE REPORT

A 53 year old female, house wife, was admitted with complaints of pain in abdomen, dry cough, exertional dyspnoea, low grade fever and decreased appetite for last two months. On general physical and respiratory system examination, there was no significant abnormality detected. Her haemogram, renal function and liver function tests were normal except low hemoglobin. Her serum CA-125 was elevated. Chest radiograph taken at the time of admission showed multiple different sized nodules in both lungs field. Her ultrasonography (USG) of abdomen and pelvis was suggestive of right ovarian mass. Her computed tomography (CT) of abdomen and pelvis revealed right adnexal mass (Figure 1) while CT thorax revealed bilateral multiple different sized nodular shadows suggestive of metastatic nodules (Figure 2). So, our provisional diagnosis was ovarian mass with multiple lung metastasis. We did the bronchoscopy of this patient and sent bronchoalveolar lavage (BAL) of cytology and AFB smear. BAL for cytology was negative for malignancy but it was positive for AFB.

Figure 1: Computed tomography of abdomen shows right adnexal mass.

She had also undergone laparotomy and tissue was sent for the histopathological examination which was suggestive of tuberculous granulomatous lesion.

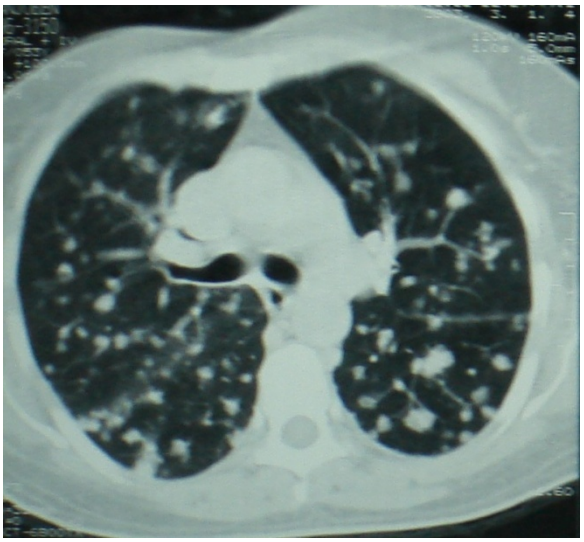

Figure 2: Computed tomography of thorax revealed multiple nodular shadows of different size suggestive of metastatic nodules

DISCUSSION

Peritoneal TB with nonspecific symptoms mimicking ovarian malignancy is a serious problem especially in developing countries. Diagnosis of peritoneal TB before operation is not easy, there is no particular laboratory or imaging assessment to differentiate this disease from advanced ovarian cancer. Tuberculous peritonitis can be divided clinically into plastic and serous types. Tender abdominal masses and a "doughy abdomen" characterize the less common plastic type. The serous type presents classically with fever, chronic abdominal pain, weight loss, and ascites. The combination of these symptoms with the presence of ascites in imaging studies plus elevated serum CA 125 values suggested the possibility of ovarian cancer. In our case non-invasive tests, such as ultrasonographic features of the abdomen and pelvis, CT, as well as serum CA-125 level were nonspecific for differentiating abdominopelvic TB from ovarian malignancy. The CA-125 level, which is elevated in more than half of early and two thirds of advanced epithelial ovarian malignancy,[4] can be increased in peritoneal TB.[5,6]

In case of multiple nodular shadows in lungs, it is common to suspect metastatic lung cancer at the outset. But the other causes in the differential diagnosis are lymphoma, benign tumours, septic emboli, inflammatory granulomas (tuberculosis, nocardiosis, fungal infection) or non-infectious granulomas (sarcoidosis, rheumatoid nodules, wegenar's granulomatosis).[7,8,9,10,11] Wide and even distribution throughout both lungs of discrete pinpoint nodules (sometimes referred to as micronodules) is the classic pattern of disseminated (miliary) tuberculosis. A tuberculoma of the lung is a round or oval lesion situated commonly in an upper lobe, the right more often than the left. Typically it is sharply circumscribed and has a diameter ranging from 0.5 to 4 cm or more. Multiple tuberculomas (two to four nodules) have also been reported. In contrast to miliary nodules and tuberculomas, the pattern of multiple bilateral discrete pulmonary nodules seen in our case is not generally recognized as a roentgenographic presentation of pulmonary tuberculosis.

Therefore, we conclude that in areas where TB is endemic women with adnexal mass with multiple nodular shadows in lungs are observed, it is common to suspect mass with metastatic lung cancer but the differential diagnosis of tuberculosis also should be kept in mind even with elevated CA 125.

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