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CASE REPORT

A CASE REPORT: PERITONEAL FLUID-AFB POSITIVE WITH VERY HIGH CA -125 LEVELS IN A CASE OF PERITONEAL TUBERCULOSIS CLINICALLY DIAGNOSED AS OVARIAN MALIGNANCY

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ABSTRACT

Tuberculosis being a common disease entity in the Indian subcontinent; a possibility of peritoneal tuberculosis should always be considered as a differential diagnosis in a suspected ovarian malignancy especially with markedly elevated serum CA-125 levels. We present a case of postmenopausal female with abdominal pain, off and on bleeding per vaginum and ovarian mass with high serum CA 125 levels. Exploratory laparotomy revealed extensive adhesions in peritoneum, intestines, uterus and ovaries. Cytology of the peritoneal fluid revealed epithelioid granulomas along with AFB positivity. The presenting signs and symptoms, imaging findings and an elevated CA-125 status in a case of peritoneal tuberculosis may resemble an ovarian malignancy. Proper cytological examination of the Peritoneal fluid sediment along with Pap and simple special stains like Ziehl Neelsen can identify the pathology in such cases and can avoid unnecessary major surgical procedures and special therapies.

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INTRODUCTION

CA-125 is a glycoprotein derived from coelomic epithelium. It is increased in benign or malignant conditions that stimulates synthesis of CA125.It is a tumor marker which has been shown to be present in non mucinous epithelial ovarianr carcinoma, fallopian tube tumours, cervical and endometrial adenocarcinoma, trophoblastic tumors, Non hodgkins lymphoma, endometriosis, non gynecological cancers of pancreas, liver, lung, benign diseases like cirrhosis, severe hepatic necrosis and other neoplastic /infective pathology. It has been used as a useful marker for monitoring patients on therapy. It is also used as a screening tool in cases of hereditary cancer syndrome or family history of cancer. [1] Tuberculosis, one of the oldest diseases is known to affect human and is caused by mycobacterium tuberculosis. The disease may be fatal within the 5 years in more than 50% of cases. Genitourinary tuberculosis accounts for about 15% of all extra pulmonary tuberculosis; this is usually due to hematogenous spread following primary infection and may involve any portion of genitourinary tract. [2]

Case Report

We report a case of 53 year old postmenopausal female admitted in our hospital with abdominal pain 5-6 days and bleeding per vaginum off and on since 3 months. Provisional clinical diagnosis made was ovarian malignancy.USG of the pelvis abdomen and pelvis suggestive of right ovarian mass 4x3 cm. CT scan of abdomen and pelvis showed an enhancing lesion in the right adnexa suggestive of neoplastic /infective pathology. SerumCA-125 levels were very high 1016.5 U/ml (Normal upto 35 U/ml).Exploratory laparotomy revealed extensive adhesions in peritoneum, intestines, uterus and ovaries. Peritoneum was studded with multiple seedlings. Peritoneal fluid along with biopsy was sent for cytological examination to rule out malignancy as CA – 125 levels were increased. The cytomorphology of peritoneal fluid revealed multiple epithelioid cell granulomas, histiocytes, lymphocytes, few plasma cells and plenty of Langhan's type of giant cells.(Figure 1a and Figure 1b) Ziehl Neelsen Stain showed plenty of Acid fast bacilli. (Figure 2) Histopathology from peritoneal biopsy revealed multiple caseating epithelioid granulomas, langhan's type of multinucleate giant cells and fibroblastic proliferation at places confirming peritoneal tuberculosis.(Figure 3 and Figure 4)

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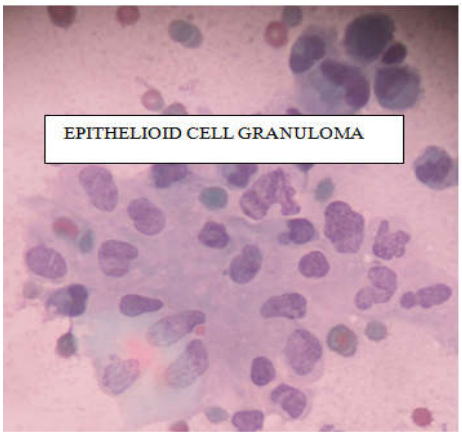

Figure 1 (a)PERITONEALFLUID-PAPSTAINX40

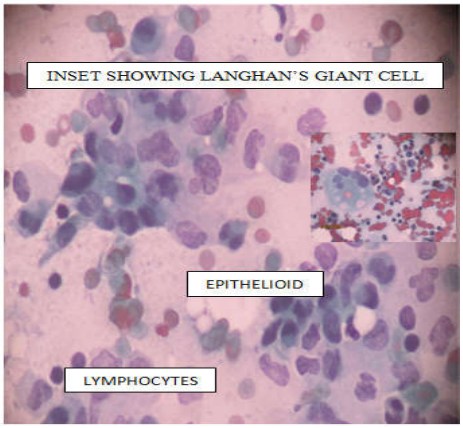

Figure 1 (b) PERITONEAL FLUID – PAP STAIN X10

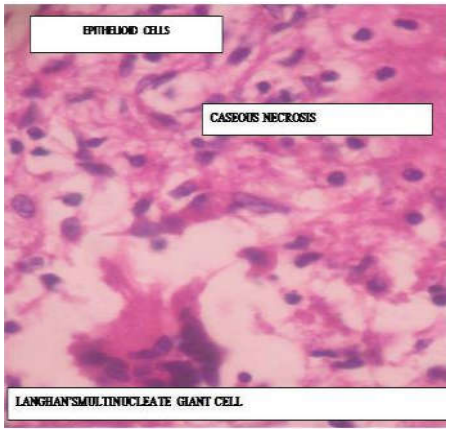

Figure 2 BIOPSY FROM PERITONEAL TISSUE H&E X40

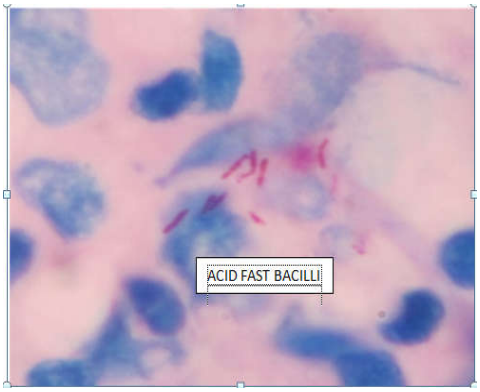

Figure 3 ZIEHL NEELSEN STAIN Showing AFB X100

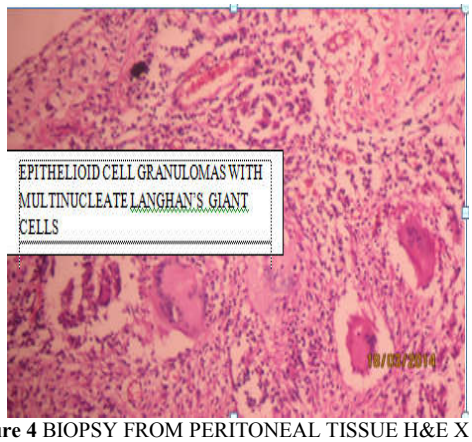

Figure 4 BIOPSY FROM PERITONEAL TISSUE H&E X 10

DISCUSSION

Biglin *et al* reported 10 patients with peritoneal TB who were operated for suspected advanced ovarian cancer. In his report all the patients had elevated serum CA125 levels with a median of 331 u/ml.[3] Yilmaz *et al* in their case control study on 96 subjects showed that serum CA125 is elevated in the case of active pulmonary TB with a mean level of 109.7 U/ml and that it is a valuable parameter in determination of disease activity [4]. Ultra sound and CT scanning do not allow a definite diagnosis due to imaging limitation. Although evaluating CT scan results are of diagnostic value in TBP, due to overlapping of these findings with a wide variety of disease processes, in most cases making a final decision and precise diagnosis solely based on imaging results, is difficult and the clinician needs to take other parameters into consideration.5Ascitis with CA125 expression has to be considered with caution and differential diagnosis of pelvic peritoneal tuberculosis has to be kept in mind by the clinicians in some cases to prevent unnecessary laporatomy.

CONCLUSION

In our case patient was taken up for exploratory laparotomy first based on imaging and CA125 findings considering it as a case of malignancy. Pelvic peritoneal TB should always be considered in a patient presenting with adnexal/ ovarian mass; especially in developing countries like India. Pelvic TB cannot be differentiated from advanced ovarian cancer based on serum CA125 level findings alone. In case the patient presents with ascitis along with high levels of CA 125 then ascitic fluid must be screened thoroughly for epitheliod cells / epithelioid granulomas. Simple test like ZN stain for AFB must be done to establish the diagnosis of peritoneal tuberculosis. However histopathological examination of the biopsied tissue from the representative site should be done for the confirmation of the diagnosis, also the interpretation of the results of CA125 expression has to be considered with caution within the context of other pathologic manifestations. Therefore cytology and biopsy seems to be reliable and accurate method for the confirmation of diagnosis of peritoneal tuberculosis in cases which mimic ovarian cancer.

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