



Tubercular Adnexal Mass Mimicking Ovarian Carcinoma- A Diagnostic Dilemma

Authors

Smita Kumari¹, Dipali Prasad², Archana Sinha³, Sadia Praween⁴, Kavya Abhilashi⁵

^{1,4,5}Senior Resident, ²Assistant Professor, ³Associate Professor

Department of Obstetrics and Gynecology, Indira Gandhi Institute of Medical Sciences, Patna

Abstract

Despite advances in diagnostic facilities and drug therapy Tuberculosis still remains a major health problem in developing countries. Presentation of pelvic tuberculosis as Adnexal mass is a rare clinical presentation of a common disease. Diagnosis of pelvic peritoneal tuberculosis is often difficult because of non specific clinical, laboratory and radiological findings. The presence of adnexal mass, ascites and raised CA-125 level may be mistaken as ovarian malignancy. Hence a high level of suspicion is required for its diagnosis and pelvic tuberculosis should always be kept in differential diagnosis in patients presenting with adnexal mass with raised CA 125 in endemic area. Here we report a case series of three patients who presented with pain abdomen with adnexal mass. They were diagnosed as pelvic tuberculosis on the basis of history, radiological and histopathological findings. They were started on antitubercular therapy and on follow up the mass either regressed or completely disappeared.

Keywords: Tuberculosis, Adnexal mass, ovarian malignancy.

Introduction

Abdominal tuberculosis which may involve the gastrointestinal tract, lymph nodes or solid viscera constitutes up to 12% of extrapulmonary tuberculosis and 1-3% of the total. Extrapulmonary tuberculosis still remains a diagnostic dilemma because of varied clinical presentation and lack of sensitive test.¹ Diagnosis of pelvic peritoneal tuberculosis is often difficult because of its non specific clinical, laboratory and radiological findings and because of the insensitivity and non specificity of currently used clinical and biochemical tests.² Being a paucibacillary disease demonstration of mycobacterium tuberculosis is not possible in all cases, so a high index of

suspicion is required.. Despite advances in drug therapy and diagnostic facilities, tuberculosis remains a major health problem especially in the developing countries.

Case Series

Case A

A 24 yrs young, married women presented in gynae OPD with complain of irregular menses, pain lower abdomen and fullness in lower abdomen since 2 months. She was para 2 living issue 2, both babies delivered by LSCS, youngest child was 1.5 yrs old. Pain was diffuse, non radiating and not associated with any aggravating or relieving factor. She had history of low grade

fever in the evening for the past 1 month. She had no history of tuberculosis in the past. In family history her brother in law residing in the same house was undergoing treatment of tuberculosis since the past 4 months. On general examination she was conscious, oriented with moderate pallor. Other vital signs were normal. On auscultation chest was B/L clear, both heart sounds were audible with no added sound.

On abdominal examination 14-16 weeks suprapubic lump, non tender, well defined margin with restricted mobility was palpable.

On per vaginal examination uterus was normal size with restricted mobility, and there was fullness in the right fornix.

Laboratory findings revealed microcytic hypochromic anemia, Hb 8.5%, TLC 7500cells/cmm, neutrophils 54%, Lymphocytes 39%. LDH 314U/L, CA-125 -187.50 U/ml and CEA 7.4ng/ml. Viral markers were negative.

Chest X-ray and ECG was normal.

Gene expert of Sputum for mycobacterium tuberculosis was negative.

Endometrial biopsy was done and sent for TB PCR. The report was negative for TB.

CECT abdomen showed heterogenous multiloculated thick walled enhancing lesion with multiple pockets of collection noted to evolve right tubo-ovarian region with thickened and adherent terminal ileal loop with mild thickening of adjacent caecal wall suggestive of inflammatory lesion likely tubercular.

On the basis of history, laboratory and radiological findings patient was started on anti-tubercular drugs. She responded to treatment well and after 2 months of treatment palpable abdominal lump disappeared and patient felt symptomatically better.

Case B

A 22 yrs young, unmarried female was referred in gynae POD with ultra sonographic finding of adnexal mass with pain lower abdomen. On general examination patient was conscious, oriented, moderate pallor was present. On

auscultation chest was clear, both heart sounds were audible with no added sound.

Laboratory investigations shows, Hb 8.8gm%, TLC 7000cells/cmm, neutrophils 55%, lymphocytes 36%, monocyte 5%. Renal and Hepatic function tests were normal. Chest X-ray was done which was unremarkable. CA 125 103.70 U/ml, LDH 208U/L, Viral markers were negative. Gene expert of sputum for mycobacterial tuberculosis was negative.

CECT abdomen and pelvis shows multiloculate thick walled enhancing cystic lesion in left adnexa size (9cmx 5 cm) with air foci suggestive of inflammatory ovarian mass. There was also multiple enhancing small mesenteric nodes 9mm seen in right iliac fossa.

USG guided biopsy from mass was obtained which showed necrotic background with few epithelioid granuloma and mixed inflammatory cells.

On the basis of above finding diagnosis of tubercular adnexal mass was made and patient was started on antitubercular drugs. On regular follow up of patient after 4 months of starting treatment patient was improved symptomatically. Ultrasonography abdomen and pelvis was done which showed bilateral bulky ovaries showing cystic lesion with heterogenous content on both sides. Right sided cyst measure (3.2x2.5 cm) and left sided measure (4.2 x 3.5 cm). CA 125 level comes down to normal (24.2U/ml).

Case C

A 26 yrs old multiparous female presented in OPD with complain of weakness and pain in lower abdomen for the past 6 months. She was P2L2, both vaginal deliveries. Last delivery was 1.5 yrs back. There was no history of tuberculosis, diabetes, hypertension or any other chronic medical condition. There was no previous surgical history in the past. Family history was non-significant.

On general examination patient was of average built, conscious, oriented. Pulse was 89bpm, blood pressure was 110/70 mm of Hg. No

lymphadenopathy was present. Chest and CVS examination were normal.

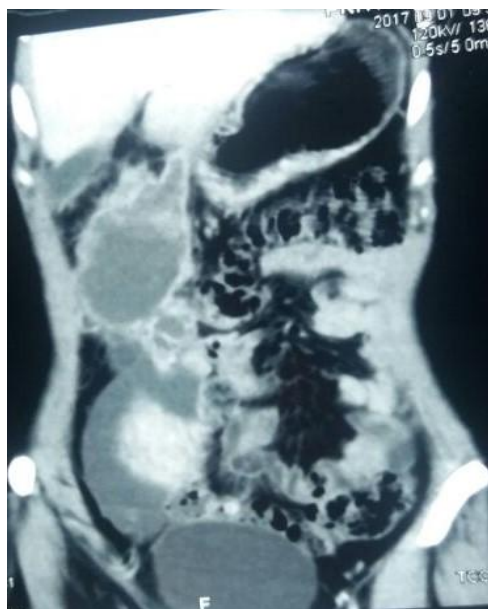
On per vaginal examination uterus was normal size, mobile. Tender lump approx 10cm with restricted mobility was felt in the right adnexa. Anterior and right fornices were full.

On routine laboratory tests Hb 9gm%, TLC 7000cells/cmm, CA-125 38.50U/ml, AFP 2.23U/ml. renal and hepatic function tests were within normal limit. Chest X ray was unremarkable.

CECT abdomen showed heterogeneously enhancing mass lesion of size 11x8cm noted to involving right adnexa with significant amount of free fluid in the adjacent area. No significant lymphadenopathy seen. FNAC was suggested for further evaluation.

Ultrasound guided FNAC of adnexal mass was done, which showed necrotizing granulomatous inflammation suggestive of tuberculosis.

On the basis of clinical, radiological and histopathological findings patient was started on antitubercular drugs. On follow up after 1 month patient was symptomatically better.



CECT abdomen of Case C showed heterogeneously enhancing mass lesion of size 11x8cm noted to involving right adnexa with significant amount of free fluid in the adjacent area, suggestive of inflammatory lesion likely tubercular.

Discussion

In developing countries like India tuberculosis is still a major concern. This study shows the rare clinical presentation of a common disease. There is no pathognomonic clinical feature or imaging finding for definitive diagnosis of extra pulmonary tuberculosis. Patients with pelvic tuberculosis may present with diverse symptoms like pelvic pain, infertility, fever, abnormal uterine bleeding or adnexal mass. fallopian tube is the most common site of involvement in genital tuberculosis.³ Pelvic tuberculosis may present with adnexal mass. The presence of adnexal mass with raised CA-125 level may be mistaken as ovarian cancer. CA-125 which is a tumor associated antigen, is a non specific marker of ovarian cancer as it is elevated in variety of condition such as tuberculosis, endometriosis, Meig's syndrome, ovarian hyperstimulation syndrome and number of non-gynaecological conditions such as hepatitis, acute pancreatitis, pericarditis, pneumonia etc.⁴ An Adnexal mass with very high serum CA-125 may lead to the diagnosis of an ovarian carcinoma.⁵ However pelvic tuberculosis with a very high serum CA -125 is also reported in the literature.⁶ The treatment of carcinoma ovary and tubercular

Adnexal mass is completely different. In this study it was interesting to see the large Adnexal masses completely resolving with antitubercular therapy. Some factors which may help in diagnosis of tuberculosis include patient age, family history, geographical area of belonging. Whereas peak incidence of occurrence of epithelial ovarian cancer is at 56-60 yrs, tuberculosis mostly occurs at reproductive age group.⁷ Personal and family history of tuberculosis is also suggestive of tuberculosis.⁸

Conclusion

In high risk group eg. Immunocompromised patient or people living in endemic zone etc. pelvic tuberculosis should always be considered in differential diagnosis in patients presenting with Adnexal mass with raised CA-125 level. Negative results of usual diagnostic tests done for tuberculosis does not rule out tuberculosis, biopsy is gold standard. Hence, in highly suspicious cases before proceeding to surgery biopsy and histopathological confirmation should be done to avoid unnecessary extensive laparotomy.

References

1. Uzunkoy A, Harma M, Harma M. Diagnosis of abdominal tuberculosis: experience from 11 cases and review of the literature. World J Gastroenterol 2004; 10: 3647-9
2. Kapoor VK. Kochs or Chrons. Int J ClinPract 1997; 51: 246-7
3. Kumar S . Female Genital tuberculosis. In : Tuberculosis. Eds. Sharma SK, Mohan A . Jaypee Publishers , New Delhi. Pp. 310-324
4. Chavan GB, Hira P, Rathod K , Zacharia TT, Chawala A , Badhe P, et.al . Female genital tuberculosis: hysterosalpingographic appearances. Br J Radiol 2004 ;77: 164-9
5. G.N Sakorafas, A Ntavatzikos, I Konstantiadou, E Karamitopoulou, D Kavatha, G Peros. Peritoneal tuberculosis

in pregnancy mimicking advanced ovarian cancer : a plea to avoid hasty , radical and irreversible surgical decisions. Int J Infect Dis, Vol 13, 2009 , pp e270e272

6. Y. Zhang ,H.Lei, Y.Wang, Y. Chen, Y. Wang. Pelvic tuberculosis mimicking ovarian carcinoma with Adnexal carcinoma with Adnexal mass and very high serum level of CA 125. J. obstet Gynaecol, Vol 32, 2012; pp. 199-200
7. Berek JS. 14thed.Vol. 38. Philadelphia: Lippincott Williams and Wilkins; 2007. Berek and NovaksGynaecology ;pp 1457-9
8. Yassaee F, Farzaneh F. Familial Tuberculosis Mimicking Advanced Ovarian Cancer. Infect Dis Obstet Gynecol 2009.Article ID 736018, 5 pages