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CASE REPORT

MEIG'S SYNDROME: A CAUSE OF DIAGNOSTIC DILEMMA

Rooplekha Chauhan[1], Bharti Sahu[2], Pallavi Baghel[3], Gajendra Singh[4], Pooja Verma[5]

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ABSTRACT: A postmenopausal 50yrs old para3 presented with abdominal pain and distension; decreased appetite and breathlessness. She was provisionally diagnosed as malignant ovarian tumor with secondaries. On USG 16x14 cm size well defined heterogeneous mass lesion was seen in left adnexa with internal vascularity; mild ascitis; right sided pleural effusion. MRI abdomen and pelvis showed large 19.1 x 12.7 cm mass with multiple septations and peripheral nodules. USG guided FNAC showed scanty inflammatory cells with proteinaceous fluid background, malignant cells were not seen. Pleural and ascitic fluid tap showed inflammatory and mesothelial cell but no malignant cell. Clinical and investigation profile suggest the Meigs's syndrome. Left side salpingo-ovariectomy done and the desired section were sent for histomorphological evaluation. Histology reported ovarian fibroma and thus confirm the diagnosis.

KEYWORDS: Meigs´s syndrome, ovarian tumor, ascitis, pleural effusion.

INTRODUCTION: Meigs´s syndrome is defined as the presence of ascitis and hydrothorax in association with a benign solid ovarian tumor. The diagnosis is often difficult because clinical markers are often lacking, and symptoms usually mimic other conditions like disseminated malignancy [1] and tuberculosis[2] resulting in misdiagnosis and delay in therapy. We present a case of menopausal women with Meigs's syndrome, initially thought to have either disseminated malignancy/ tuberculosis. We emphasize on the thorough evaluation of patient with ascitis and hydrothorax in context with pelvic mass.

CASE REPORT: A postmenopausal 50yrs old para3 presented with weakness, fatigue, decreased appetite, indigestion, abdominal pain and distension with loss of appetite and breathlessness since months. The patient was alert and oriented but anxious and dyspneic; was comfortable only in upright position on bed. She was pale, afebrile; her pulse was 120/mins, blood pressure, 130/90mmhg, respiration, 30 breaths per minute. Precordium was quiet, with normal heart sounds and no murmurs. Lungs showed decreased breath sound on the right side to auscultation and percussion.

Breast examination was unremarkable and she had no lymphadenopathy. She had distended abdomen, a firm mobile mass with smooth surface and vaguely defined boundaries due to mild ascites and pain, of around 28week gestation size was found, it was dull on percussion. On per speculum examination- cervix was pulled high up, and showed nabothian follicles, per vaginal examination-uterus was anteverted and multiparous in size no mass felt vaginally but left fornix was tender, the movement of cervix were not transferred to abdominal mass, pouch of Douglas was free. Per rectal examination- left adnexal mass was felt, rectal mucosa was free.

She had a hemoglobin of 6.5g/dl, white cell count of 10, 000/ml, platelet:4 lacs/ml, random blood sugar-87mg/dl, LFT: SGOT-53U/L, SGPT- 58U/L, total serum bilirubin-1mg/dl, total serum

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protein-6.60gm/dl, albumin-8.20gm/dl, globulin-3.40gm/dl, A/G ratio.94. Renal function was within normal limit. Ultrasound scan showed 16x14 cm size well defined heterogeneous mass lesion seen in right adnexa with internal vascularity present with right gross pleural effusion and mild intra-peritoneal collection.

There was no lymphadenopathy or peritoneal or hepatics deposits. The Ziehl-Neelson stain for AFB was Negative. PCR testing was negative. Chest X Ray revealed right sided pleural effusion. MRI abdomen and pelvis shows large 19.1 x 12.7 cm round to oval soft tissue mass lesion with hyper intense on T2W and hypo intense on T1W image with multiple septations within it as well as peripherally based solid nodules. USG guided FNAC showed scanty inflammatory cells with proteinaceous fluid background negative for malignant cells. An ascitic and pleural tap was negative for malignant cells and a mantoux was negative.

Exploratory laparotomy was performed, 500 ml of brownish hemorrhagic peritoneal fluid was aspirated and a solid mass with smooth surface arising from the left ovary and lying on the right side with a twist in its pedicle was easily removed as it was not adhered, the second ovary was found to be normal and uterus was multiparous in size. The patient underwent Left side salpingo-ovariectomy. The specimen was sent for histomorphological analysis. A pathological evaluation of the specimen revealed a Reniform solid mass brownish black discolored surface which was smooth and free of adhesion it weighed 2kg and measured 25x15cm.

Cut section showed solid tumor, with congestion in the periphery and central part appearing pale and showing some hyaline degeneration. Histological evaluation revealed a degenerated ovarian fibroma, composed of bundles of fibrocytes lying down collagen, occasional mitosis, dilated vessels, areas of degeneration and hemorrhage were seen. These critical findings were suggestive of ovarian fibroma with secondary degenerative changes (Figure 1). After surgical intervention the ascites and pleural effusions resolved completely as confirmed by repeat x-ray chest (Figure 2). The patient had an uneventful recovery; he was discharged on the tenth postoperative day.

DISCUSSION: Meigs's syndrome is a rare condition, occurring in less than 1-2% of ovarian tumors, consists of benign ovarian tumor with ascites and hydrothorax [3]. Salmon reported the association of pleural effusion with benign pelvic tumours.[4] Meigs's syndrome is limited to benign solid ovarian tumors in association with ascites and pleural effusion and that resolved without recurrence when the tumor was removed.[3]

Gynecological conditions other than fibroma associated with ascites and pleural effusion have also been reported; termed pseudo-Meigs's' syndrome.[5] Currently, it is difficult to discern the underlying mechanism for the fluid accumulations but most probably it could be either due to leakage from or pressure on the surface lymphatic vessels[3] or the process is attributed to inflammatory cytokines.[6] Surprisingly in the present case these values were within normal limit pre-operatively.

In current report serum 125 was found to be moderately raised. Although there is a strong correlation between ovarian malignancy and raised serum CA 125 levels, in benign tumor like fibromas the CA125 production attributed to peritoneal irritation rather than direct production from the tumor.[7]

The authors believe that the cytological examination of the ascitic and pleural liquid in patients with ovarian tumors is critical in order to differentiate between reactive processes and tumor spread. Repeated cytologic examinations of effusion revealed no malignant cells.

The detection of malignant cells is a marker of malignant disease and a sign of poor prognosis.[8] Authors believe that in cases of pelvic mass with normal cytological behavior and raised CA 125 Meigs's syndrome should be suspected. Furthermore Study[9] has reported pericardial effusion with Meigs´s syndrome as atypical presentation; though rare in young patients it cannot be overlooked in elderly patients. Author speculated mandatory thorough cardiac examination to rule out pericardial effusion.

In present case, Normal cytological study and findings of histomorphological evaluation ruled out any disseminated malignancy. Aspiration/tap Negative for AFB and PCR status excludes abdominal Koch. After resection, effusions disappeared promptly (Figure 2), confirming a diagnosis of Meigs's' syndrome caused by benign solid ovarian tumor. Authors believe that the diagnosis of Meigs's syndrome is the diagnosis of exclusion.

Meigs's syndrome, the way it presented and the similarity of the symptoms to those of a disseminated malignancy or tuberculosis, especially in elderly mean that it is easily overlooked. It must be borne in mind that occasionally the initial presenting features of underlying pathology such as benign fibroma may be abdominal discomfort, fatigue and breathlessness arising from benign ovarian tumor associated ascitis and a pleural effusion.

Present case report is an effort to encourage consulting surgeons to consider Meigs's syndrome amongst their differential diagnoses of abdominal discomfort, fatigue and breathlessness, especially in conjunction with pelvic mass. Meigs's syndrome requires early detection because early intervention carries a good prognosis with no significant long-term health issues.

CONCLUSION: In present report we have showed that patients with Meigs's can mimic clinically as disseminated malignancy or tuberculosis and thus demands thorough evaluation of patient. Early detection has a good prognosis. No one treatment is uniformly effective, and often a combination of surgery and standard medical management (ascitic and pleural tapping) is necessary for the resolution of the symptoms.

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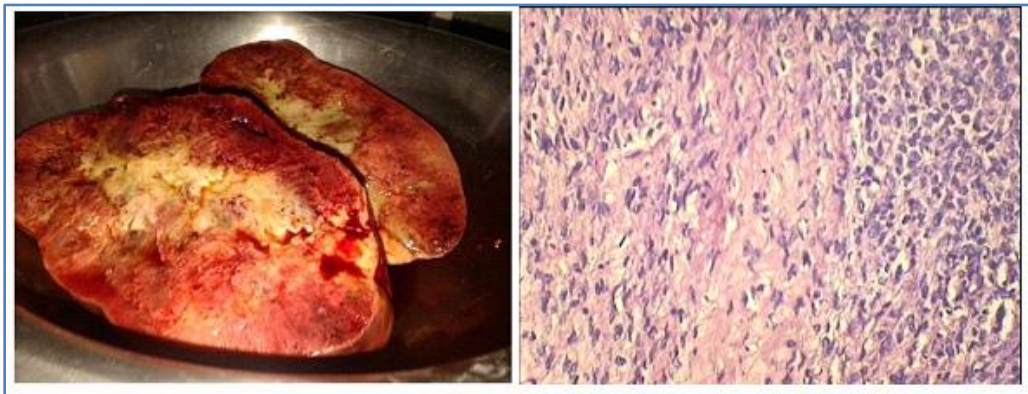
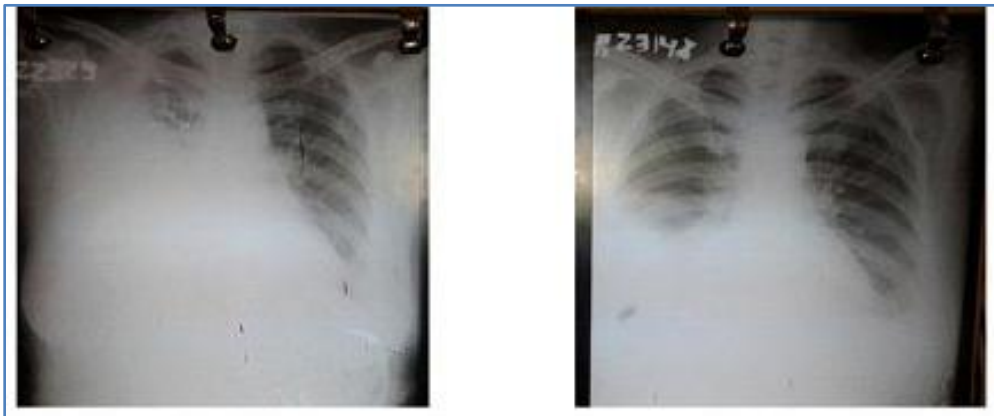


a b

Figure 1: a)Gross : Reniform solid mass brownish black discolored surface which was smooth and free of adhesion; with congestion in the periphery and central part pale; b) microscopic degenerated ovarian fibroma, it composed of bundles of fibrocytes lying down collagen, occaisional mitosis, dilated vessels, areas of degeneration and hemorrhage

Fig. 1



a b

Figure 2: a) X-ray Chest: a) right sided gross pleural effusion pre-operatively;b) resolution of pleural effusion post-operatively

Fig. 2

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AUTHORS:

1. Rooplekha Chauhan
2. Bharti Sahu
3. Pallavi Baghel
4. Gajendra Singh
5. Pooja Verma

PARTICULARS OF CONTRIBUTORS:

1. Professor and HOD, Department of Obstetrics and Gynaecology, NSCB Medical College, Jabalpur, M. P.
2. Assistant Professor, Department of Obstetrics and Gynaecology, NSCB Medical College, Jabalpur, M. P.
3. Post Graduate, Department of Obstetrics and Gynaecology, NSCB Medical College, Jabalpur, M. P.
4. Post Graduate, Department of Obstetrics and Gynaecology, NSCB Medical College, Jabalpur, M. P.
5. Post Graduate, Department of Obstetrics and Gynaecology, NSCB Medical College, Jabalpur, M. P.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Pallavi Baghel,
House No. 995,
Amanpur, Narsinghward,
Madan Mahal, Jabalpur-482001,
M. P.
Email: drpallavibaghel@gmail.com

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