

Case Report

A Case Report of Meig's Syndrome with Elevated CA 125

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Abstract

Meig's syndrome is a rare syndrome that consists of a benign ovarian tumor accompanied by ascites and pleural effusion. Elevated serum carbohydrate antigen 125 (CA 125) levels in postmenopausal women with solid adnexal masses, ascites and pleural effusion are highly suggestive for malignant ovarian tumors.

Patients with Meig's syndrome have a benign disease, with good prognosis, but can also have elevated serum CA 125 levels. The authors present a case report of Meig's syndrome with elevated CA 125 levels in a postmenopausal woman. This is a rare cause of pleural effusion, which is interesting because of its diagnosis and clinical course.

Keywords

- Meig's syndrome
- Ovarian tumour
- Pleural effusion

INTRODUCTION

Meigs syndrome with elevated CA125 is a relatively rare condition. Only very few cases are reported in the literature. Though it mimics advanced ovarian malignancy and cases have been reported where chemotherapy was given to such patients, it is a benign disease with good prognosis if properly managed [1,2].

CASE PRESENTATION

A 53 year old postmenopausal woman presented to us with abdominal distention and breathlessness since one month. She attained menopause 8 years back. Clinical examination of the respiratory system revealed decreased air entry on the right side. On abdominal examination, a mass of 24 weeks gravid uterus size was detected. It was highly mobile, firm in consistency, and non-tender. There was associated ascites. On pelvic examination the mass was not felt in the pelvis and cervix was high up.

Both fornices were clear and no nodules were felt in the pouch of Douglas. Ultrasonogram revealed gross ascites and a large solid lesion 15 x 16 cms in the lower abdomen with possibility of an ovarian tumour and right pleural effusion. CT scan showed 18.6 x 16.1 cms well defined thin walled predominantly cystic lesion in the abdominal pelvic cavity with few thin septations (but this finding of cystic lesion was found to be wrong at laparotomy). Both ovaries could not be seen separately. There was moderate ascites and right sided pleural effusion and no retroperitoneal lymphadenopathy.

Ascitic fluid cytology done twice was negative for malignant cells. But pleural fluid cytology revealed lymphocytic predominance and hence Adenosine deaminase levels were checked to rule out tubercular effusion and it was found to be

normal. CA 125 levels done initially was 421 U/ml and repeated before surgery. The value was 578 U/ml.

Upper GI scopy and Mammography was normal. Exploratory laparotomy with a frozen section biopsy was proceeded with. There was a 20 x 25 cm hard mobile mass in the left ovary with intact capsule and no adhesions (Figure 1). Right ovary was atrophic and uterus was atrophic. About 2.5 litres of straw colored ascitic fluid was drained. Frozen section biopsy reported as stromal cell tumor probably fibroma. Total abdominal hysterectomy with bilateral salpingo oophorectomy was done. The other abdominal organs were found to be normal. Histopathology was suggestive of fibrothecoma.

Post operative period of the patient was uneventful. There was no accumulation of peritoneal fluid. Xray chest taken on the 5th postoperative day revealed a resolved pleural effusion on the right side. Ultrasound done 10 days later revealed just minimal ascites (Figure 2).

Patient was discharged in good health. Patient was on regular follow up. The value of CA 125 after one month of surgery became normal. It was 15.3 U/ml, after 2 months it was 6.1/ml and after 6 months it was 6.5 U/ml. Ultra sonogram of abdomen and pelvis after one month revealed no ascites and pleural effusion and the one taken after 2 months showed the same finding with no recurrence.

DISCUSSION

Meig's syndrome is a rare benign disorder. Meig's syndrome with elevated CA 125 is still rarer and only very few cases are reported in the literature till date. Its main significance lies in the management perspective of ovarian tumors. Cases are on record where such cases were treated with chemotherapy [1,2].



Figure 1 20 x 25 cm hard mass in the left ovary.



Figure 2 Solid mass with intact capsule.

The four characteristic features for the diagnosis of Meig's syndrome are 1, the tumor must be a fibroma or fibroma-like tumor 2, Ascites 3, Right sided hydrothorax 4, Ascites and hydrothorax resolve with removal of tumor. Usually after surgical removal of the tumor there is no recurrence [3,4].

The pathophysiology still remains unclear. The proposed mechanisms for elevated CA 125 is that the pleura and peritoneum are derivatives of the fetal coelomic epithelium and an increased intra abdominal pressure by the tumor growth elicit mesothelial expression of this glycoprotein. Irritation of the peritoneal surface by the tumor may explain the increased levels [5,6].

Reason for ascites which are postulated include transudation through the tumor surface which exceeds the peritoneal resorbptive capacity, direct pressure on the surrounding lymphatics, tumor torsion and that of hydrothorax is transfer of

ascitic fluid via trans diaphragmatic lymphatic channels and the right sided hydrothorax may be explained because of the defects in the diaphragm are more common on the right [7,8].

In our patient also the ascites and hydrothorax resolved after surgery and CA 125 levels became normal. In conclusion Meig's syndrome is a benign condition with good prognosis, although association between ovarian tumor, pleural effusion, ascites, elevated CA 125 in a postmenopausal woman is highly indicative of epithelial ovarian cancer.

CONCLUSION

Clinical suspicion of this rare condition must be borne in mind and proper pre operative evaluation is to be done before starting chemotherapy for suspected advanced malignancy in such patients and prevent unnecessary harm to the patient. Long follow up is needed in such patients because there is a case report where recurrence has taken place after 30 years but even that recurrence was a benign one [9,10].

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