



MEIGS SYNDROME : AN UNCOMMON CAUSE OF MASSIVE HAEMORRHAGIC PLEURAL EFFUSION

Pulmonary Medicine

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ABSTRACT

In a postmenopausal woman, a pelvic mass, pleural effusion, and large ascites usually indicate a poor prognosis. The precise diagnosis and treatment, however, necessitate surgery and histological testing. This case was more difficult for us since it presented a diagnostic conundrum because the tumour markers for ovarian cancer were within normal limits. We present a case of Meigs' syndrome in a postmenopausal woman with a left ovarian tumor and normal CA125 values.

KEYWORDS

INTRODUCTION :

Ovarian cancer is significant , not because it is the sixth most frequent cancer in women globally, but because it is the most lethal gynecologic malignancy in Western Europe and North America, killing more women than uterine and cervical cancer combined. It is primarily a postmenopausal woman's condition, with a median age of 60 years at diagnosis [1]. In postmenopausal women with solid adnexal masses, ascites, and pleural effusion, elevated serum CA125 values are highly indicative of malignant ovarian tumor. However, because a minority of patients with these features have a benign illness known as Meigs' syndrome, surgery and histological confirmation of the preoperative diagnosis are required. After the pelvic tumor is removed, this problem goes away. In a postmenopausal lady, we present a case of Meigs' syndrome caused by right ovarian fibroma and normal serum CA125 level.

CASE REPORT :

A 67-year-old woman reported to casualty with a lump in her abdomen that had been present for one year and had grown in size during the previous three months to its current size of approximately 20x20 centimetres with concomitant pain. Increased frequency of micturition during the past two months, as well as shortness of breath for the past four days. She was vitally stable, with the exception of slight hypoxia, which necessitated 4-5 litres of oxygen support. On evaluation of the right lung, the percussion was faint and the breath sounds were decreased. A right-sided large pleural effusion was discovered on chest radiography. The patient underwent needle thoracentesis, which was followed by closed thoracic drainage of the haemorrhagic pleural effusion (1000 ml). The cytology of the pleural fluid indicated no cancer cells. The CA125 tumour marker level was 14.3 IU/ml (normal range : 35 U/ml), and all other laboratory tests, including AFP and BHCG levels, were within normal limits. A palpable lump in the abdomen was discovered during an abdominal examination. 20x20 cm is the approximate size.

CECT abdomen and pelvis revealed a massive heterogeneously enhancing mass lesion in the abdomino-pelvic area of 20x20x17 centimetres with evidence of neovascularization, suggesting ovarian cancer.



A.

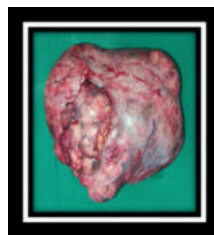


B.

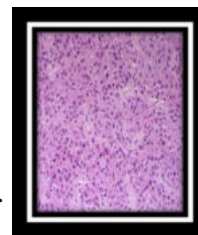
(A) A chest radiograph revealed right massive pleural effusions.

(B) The chest radiograph revealed no pleural effusion six days following surgery.

Pleural fluid refilling was noticed on the right side for which an ICD was inserted within a week. An exploratory laprotomy was conducted after the initial anticipated diagnosis of an ovarian tumor with hydrothorax. The left ovary measured 20x 15x 15 cm during surgery and had a smooth surface with no excrescences or papillary projections. The left tube was stretched along the swollen ovary's path, with signs of ascites, as well as peritoneal and omental deposits. The intestine and liver surfaces were also normal. There was no evidence of pelvic or para-aortic nodal enlargement. The ovarian tumor was histopathologically identified as sex cord stromal cells, potentially GRANULOSA THECA CELL TUMOR. It was made much more difficult by pathological studies, which revealed that tumor makers for ovarian cancer were within normal range. Patient was followed up after a month with repeat ovarian markers and chest xray which did not show any significant abnormality.



C.



D.

(C)The cyst itself was multiloculated and contained clear, watery serous-type fluid, with a smooth inner wall of gray.

(D)Microscopic images of the tumor revealed sex cord stromal cells – GRANULOSA THECA CELL TUMOR

DISCUSSION :

Salmon discovered the link between pleural effusion and benign pelvic malignancies in 1934. The significance of pleural effusion and ascites in benign ovarian fibroma was not well recognised until the 1937 study by Meigs and Cass [2]. The triad of benign ovarian tumour, ascites, and pleural effusion that disappears after removal of the tumour is known as Meigs' syndrome. Despite the fact that Meigs' syndrome looks like a cancer, it is a benign disease with a fairly excellent prognosis if appropriately controlled. After the tumour is surgically removed, the patient's life expectancy is comparable to that of the general population.

Ovarian fibroma is present in 2-5 percent of surgically resected ovarian tumours [3,4], and Meigs' syndrome in roughly 1%. Ascites is present in 10-15% of people with ovarian fibroma, and pleural effusion is found in 1% of those with ovarian fibroma, especially in big lesions [5, 6].

CA125 antigen is a high-molecular-weight glycoprotein that is identified by a monoclonal antibody (OC-125). The amnion and embryonic coelomic epithelium express it [11]. Many adult tissues, including the epithelium of the fallopian tubes, endometrium, endocervix, and ovaries, can contain the antigen [12]. It's also found in the pleura, pericardium, and peritoneum's mesothelial cells. As a result, some normal bodily tissues can create a little amount of CA125 in the circulation or serum. This tumour marker is reported to be raised during menstruation or pregnancy, as well as in some benign illnesses including endometriosis, peritonitis, or cirrhosis, especially in the presence of ascites [13, 14]. It also has a higher rate of vascular invasion, tissue damage, and inflammation, which are all signs of malignancy. In a study by O'Connell et al. [10], a CA125 level greater than 35 U/ml had a 60% predictive value for ovarian cancer and an 84 percent predictive value for prostate cancer.

CONCLUSION:

Various studies have been carried out to pertaining to Meigs syndrome and pleural effusion. In our case it created a diagnostic dilemma since tumor markers were within normal range and associated with massive right sided haemorrhagic pleural effusion which was resolved completely after tumor resection, which helped in concluding that the patient had benign ovarian tumor leading to massive haemorrhagic pleural effusion and mild ascites.

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