



Meigs' Syndrome in an Elderly Woman with Short of Breath

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The Meigs' syndrome is a rare syndrome defined as the triad of benign solid ovarian tumors, ascites, and pleural effusion, which resolve spontaneously and permanently after tumor resection. Lung collapse due to a large amount of pleural effusion is a common mechanism of death. It always requires surgical treatment. We report an 84-year-old woman with a large ovarian fibroma associated with Meigs' syndrome and short of breath. It is difficult to diagnose preoperatively and is usually misdiagnosed as an ovarian malignancy. Considering the patient's serious clinical condition and assuming that she had Meigs' syndrome with a large ovarian mass and possible lung collapse due to large amount of pleural effusion, we chose the most appropriate surgical treatment after pathologic examination, then enabled definitive diagnosis of the benign tumor and removed the huge ovarian fibroma. This resulted in a timely symptoms resolution, short hospitalization, and relatively low morbidity in elderly.

Key words: Elderly, Meigs' syndrome, ovarian fibroma

INTRODUCTION

Meigs' syndrome is a rare syndrome defined as the triad of benign solid ovarian tumors, ascites, and pleural effusion.¹ The syndrome appears in approximately 1% of ovarian fibromas. The untreated Meigs' syndrome is fatal, and the common mechanism of death is lung collapse due to the large amount of pleural effusion.² The Meigs' syndrome mimics a malignant condition, but it is a benign disease with a very good prognosis if properly managed. We report a patient with a large ovarian fibroma associated with Meigs' syndrome and short of breath that was treated by only unilateral salpingo-oophorectomy surgery.

CASE REPORT

An 84-year-old women, gravida 9, para 8, abortus 1, presented to our emergency room with a 2-day history of short of breath, anorexia, abdominal bloating and pain. Her medical history in the past was unremarkable except for intermittent episodes of abdominal discomfort and a sensation of abdominal heaviness during the preceding months. Physical examination

revealed a mass that occupied almost the entire abdomen, extending from the lower abdomen to above the umbilicus and restricting mobility. The uterus and adnexum could not be assessed on bimanual pelvic examination. The serum cancer antigen (CA)-125 level was elevated (363.5 IU/ml, normal range <35 IU/ml). Chest X-ray showed the presence of pleural effusion on the right side. Contrast-enhanced computed tomography (CT) showed a large solid adnexal mass at the right side (25 cm × 20 cm × 15 cm), ascites and right pleural effusions; [Figure 1]. Considering the patient's serious clinical condition and assuming that she had possible Meigs' syndrome with a huge ovarian mass and ascites, at laparotomy, there was a large amount of ascites fluid and a lobulated bulging mass on the right ovary. We performed right salpingo-oophorectomy for the patient. Grossly, the ovarian tumor measured 24 cm × 19 cm × 12 cm and weighed 4300 g, with well-encapsulated, yellow to white in color, solid and cystic degeneration [Figure 2]. Malignancy was excluded by intraoperative histological examination, which revealed cellular fibroma of the right ovary [Figure 3]. Peritoneal cytology showed inflammation with no malignant cells. The patient was discharged 10 days after the surgery with a small pleural effusion, which resolved approximately 2 weeks after being discharged. One month later she had recovered well and was asymptomatic.

DISCUSSION

The Meigs' syndrome can be easily misdiagnosed as malignant ovarian tumors because of accompanying ascites with an increased serum CA-125 level.³ The untreated

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Meigs' syndrome in an elderly woman with short of breath

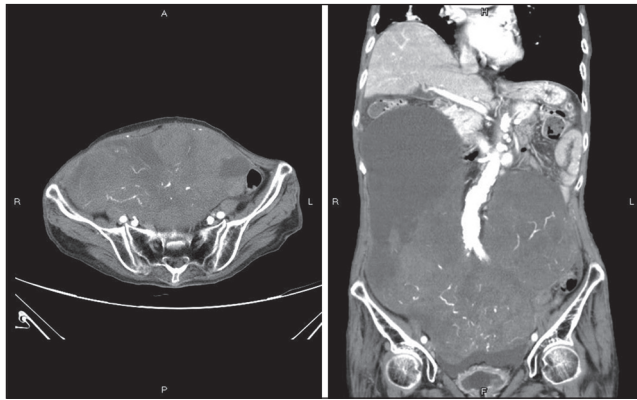


Figure 1. Computed tomography shows a well-defined giant mass occupies the abdominopelvic region with heterogeneous density and cystic changed



Figure 2. The ovarian mass measured 24 cm × 19 cm × 12 cm and weighed 4300 g. It shows well-encapsulated, yellow to white in color, solid, firm and cystic degeneration with multifocal necrosis and haemorrhage

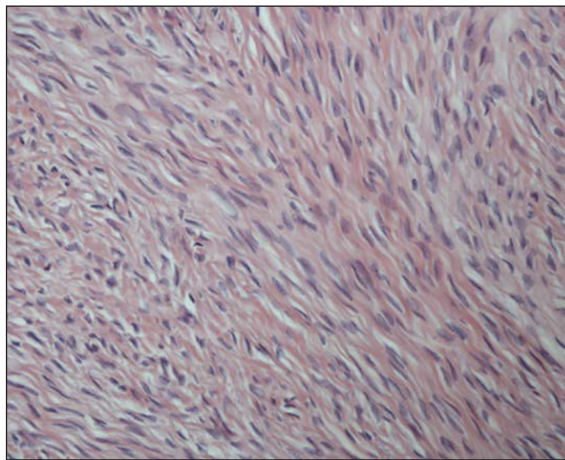


Figure 3. It shows a cellular proliferation of intersecting bundles of spindle cells without active abnormal mitotic figure. H and E, ×200

Meigs' syndrome is fatal and that the common mechanism of death is lung collapse due to large pleural effusion.² The Meigs' syndrome always requires a surgical treatment. Unilateral salpingo-oophorectomy or ovarian cystectomy can be considered in women of reproductive age, whereas total

hysterectomy can be performed in postmenopausal women.^{3,4} However, extensive surgical procedures are associated with substantial postoperative morbidity and mortality, especially in an elderly patient. Published reports found the 30-day mortality following primary debulking surgery for advanced ovarian cancer ranging from 2.5% to 4.4%.⁵ Increasing age has been strongly associated with increased postoperative mortality following abdominal surgery. The 30-day mortality among women over age of 80 with all stages of ovarian cancer has been reported to range from 9.8% to 13%, emergent admission was associated with almost a triple increase in the risk of the 30-day mortality.⁵

For the postmenopausal woman who is over 80 with emergent admission, we chose unilateral salpingo-oophorectomy surgery instead of total abdominal hysterectomy with bilateral salpingo-oophorectomy surgery.

This case highlights the complexities associated with the diagnosis and treatment of patients with severe complications of the benign ovarian disease. This syndrome is usually associated with large fibromas and high CA-125 levels.^{6,7} However, a high CA-125 level does not necessarily indicate ovarian cancer⁸ and can also be associated with ovarian fibroma and the accompanying ascites.^{9,10} The serum CA-125 level does not seem to have high specificity for ovarian malignancy. This patient did not have the CT findings suggesting malignancy. We consider that the size of the ovarian tumor and the related symptoms indicate that simple surgical excision of ovarian tumor in an elderly woman is more favorable than extensive cytoreductive surgery, which may result in higher postoperative morbidity and mortality. In this patient, the approaches mentioned previously were necessary because of the size of the ovarian mass, ascites, pleural effusion and the result of severe short of breath. Furthermore, it is known that large pleural effusion in Meigs' syndrome is often associated with the chronic development of pleural effusion resulting in lung collapse. The untreated Meigs' syndrome is fatal and the cause of death is lung collapse due to massive pleural effusion.² If the patient presents in acute respiratory distress with massive pleural effusion, thoracocentesis or pleural catheter placement or mechanical ventilation should be performed first. Meigs' syndrome must be recognized in a timely manner and promptly treated by performing a complete resection of the pelvic mass.

CONCLUSION

The ovarian benign tumor with Meigs' syndrome may mimic malignancy; therefore, awareness of the possibility is an important step to lead to the correct diagnosis. The ultimate diagnosis is almost dependent on the intraoperative findings and the histopathological examination. A feasible and safe

surgery is the recommended treatment for ovarian fibroma with Meigs' syndrome in an elderly woman. A long-term clinical follow-up is recommended.

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