Case Report

iMedPub Journals
www.imedpub.com

Gynaecology & Obstetrics Case report
ISSN 2471-8165

2021
Vol.7 No.8:146

Revisiting Meigs Syndrome: A Typical Case Report

Hall H*, Weirich E, Gruda A, Haddad C, Malviya V and Chang CY

Department of Gynecology and Obstetrics, Garden City Hospital, Garden City, Michigan, USA

***Corresponding author:** Heather Hall

heatherhalldo@gmail.com

Department of Gynecology and Obstetrics, Garden City Hospital, 6245 Inkster Road, Garden City, Michigan-48135, USA.

Tel: +1-4178405388

Citation: Hall H, Weirich E, Gruda A, Haddad C, Malviya V, et al. (2021) Revisiting Meigs Syndrome: A Typical Case Report. Gynecol Obstet Case Rep Vol.7 No.8:146

Abstract

This case report is written concerning a patient with Meigs Syndrome. The patient initially presented with symptomatic ascites. Further investigation found evidence of a pleural effusion, ascites, and a 19-centimeter pelvic mass. The mass was surgically removed and found to be a benign mucinous cystadenofibroma. After the removal of the mass, the ascites and pleural effusion resolved spontaneously and did not recur. The clinical picture of ascites, pleural effusion, and cystadenofibroma with the resolution of fluid collections after removal of the mass is consistent with a diagnosis of Meigs Syndrome. While the clinical picture of ovarian mass with concomitant ascites and pleural effusion is concerning for malignancy, clinicians need to be reminded of Meigs Syndrome as a possible diagnosis with benign etiology.

Keywords: Benign ovarian mass; Fibroma; Cystadenofibroma; Pleural effusion; Ascites; Meigs syndrome

Received: June 23, 2021; **Accepted:** July 14, 2021; **Published:** July 22, 2021

Introduction

Meigs Syndrome is characterized by the triad of pleural effusion, ascites, and ovarian fibroma. It is a rare syndrome that occurs in approximately 1% of cases of an ovarian mass [1,2]. Pseudo-Meigs syndrome has also been reported with other ovarian masses, but true Meigs Syndrome is associated with an ovarian fibroma. By definition, pleural effusion and ascites in Meigs Syndrome subside after resection of the associated ovarian mass [3-5]. Symptoms of ovarian mass may predominate patient presentation including bloating, palpable pelvic mass, bowel or urinary obstruction, early satiety, weight gain, or weight loss. The patient may also present with symptomatic pleural effusion and/or ascites including shortness of breath, bloating, abdominal distention, or abdominal pain. The clinical picture of Meigs syndrome-an ovarian mass in the setting of ascites and pleural effusion can lead clinicians to strongly suspect malignancy. However, Meigs syndrome is a benign condition in which pleural effusion, ascites, and abnormal fluid will resolve with the removal of the mass [6].

Case Report

A 59-year-old G5P2032 with a past medical history significant for hypothyroidism, gastroesophageal reflux disease, and chronic constipation initially presented to the emergency department complaining of feeling a mass within her pelvis. The patient reported rapid enlargement of the mass over approximately nine months associated with early satiety and weight loss. Her prior surgeries included remote open cholecystectomy and hysterectomy for abnormal uterine bleeding about fifteen years prior.

The clinical exam was significant for no acute distress, non-labored respirations, lungs clear to auscultation bilaterally, abdomen distended with a palpable fluid wave, and bimanual exam with limited findings secondary to ascites, however, a large palpable pelvic mass was noted up to the level of the umbilicus.

Diagnostic assessment

Computed tomography of the abdomen and pelvis with and without contrast showed moderate ascites, heterogeneous liver parenchyma, and a large septated and mid-pelvic lesion 16 cm × 15 cm. Free fluid was noted within the pelvis. The patient underwent paracentesis with the removal of approximately four liters of yellow mucinous fluid. The ascitic fluid cytology was negative for malignancy. A 19 cm × 20 cm septated pelvic mass was noted on ultrasound at the time of paracentesis. It was determined that the patient should undergo surgical resection of the ovarian mass to allow pathological diagnosis **(Figures 1 and 2)**.

Therapeutic intervention

The patient underwent an exploratory laparotomy with a gynecologist and a gynecologic oncologist. Two liters of fluid were removed from the abdomen and sent to pathology. The right ovary and mass were resected and sent to pathology for a frozen section. Preliminary results of the frozen specimen showed a benign mucinous cyst. Due to its size and mucinous nature, the decision was made to perform a subsequent right salpingectomy, left salpingectomy, left oophorectomy, and appendectomy. Performing an appendectomy was of the utmost importance clinically given the mucinous nature of the tumor. Omental biopsies were also taken. The estimated blood loss was 150 ml. The patient tolerated the procedure well, recovered from anesthesia in the post-anesthesia care unit, and stayed two nights in the hospital for recovery and monitoring. She was meeting all postoperative milestones and was discharged home in stable condition on postoperative day two. Two days postoperatively, an X-ray of the abdomen showed trace pleural effusion of the left lung, and an ultrasound for a survey of ascites showed a minor amount of fluid within the abdomen two days postoperatively. At her postoperative appointment, the patient had recovered well from the procedure. Her incision was well-healed. She had no further accumulation of ascites and no pulmonary symptoms. Six months after the procedure, the patient was doing well without any sequelae from the procedure or Meigs syndrome.

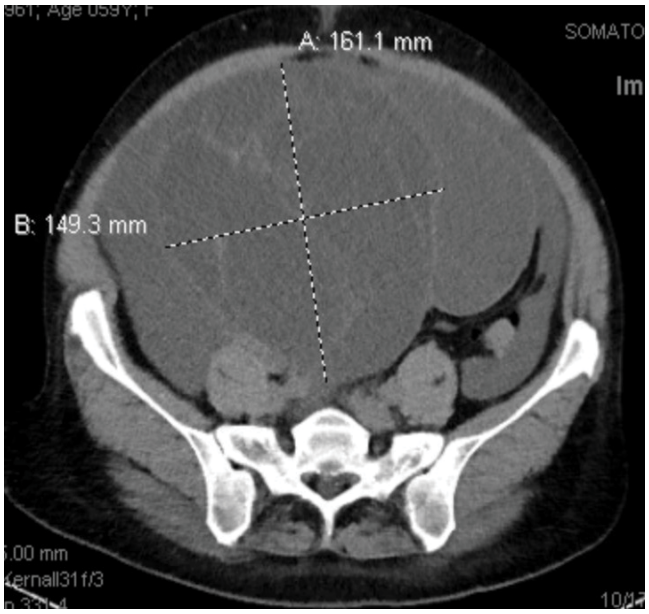

Figure 1 Computed tomography of the abdomen and pelvis with contrast.

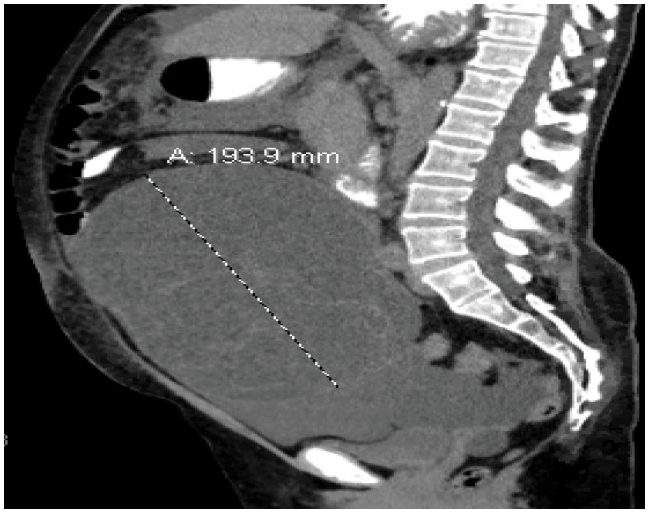

Figure 2 Computed tomography of the abdomen and pelvis without contrast.

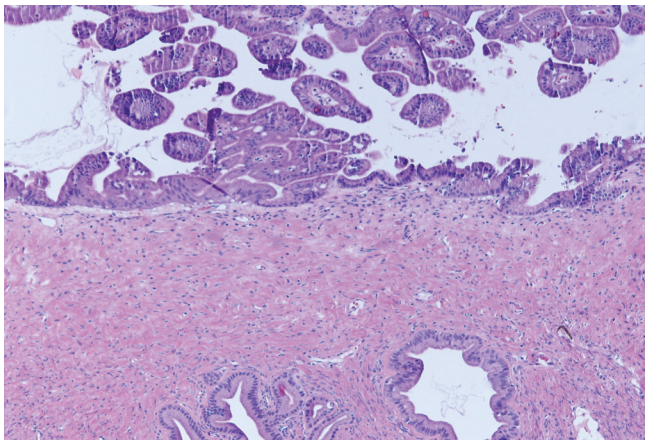

Figure 3 Mucinous neoplasm with mild epithelial proliferation or stretched flat surface from distended secretions, occasional more imagined proliferation and rare papillary tufted growth. (Image courtesy: Dr. Chang, Garden City Hospital).

Final pathology

The final pathologic report was significant for a 19 cm × 18.5 cm × 8 cm cystic ovary with a relatively smooth external smooth with occasional small foci of adhesion. Opening the ovary revealed multiloculated cysts of variable sizes ranging from a few millimeters to about 10 cm in the largest cyst which were predominantly translucent, viscous, and mucoid. Microscopic sections confirmed the diagnosis of benign cystic mucinous cystadenofibroma without any nuclear or cytological atypia identified. Macroscopic examination of the ascitic fluid removed during the surgery showed cloudy yellow fluid. Microscopic examination showed no evidence of malignancy **(Figure 3).**

Discussion and Conclusion

While the incidence of cystadenofibroma is unknown, it is estimated to account for approximately 1.7% of all benign ovarian neoplasms [7]. At the time of surgery, these masses have a gross appearance of malignant tumor with solid and cystic components necessitating the need for a frozen section at the time of surgery [8]. Mucinous components of ovarian masses often make preliminary pathologic diagnosis difficult as mucinous tumors are often heterogeneous in nature requiring multiple frozen sections

to be made at the time of resection [9]. Mucinous tumors are notoriously difficult tumors in which to rule out malignancy. Mucinous tumors also require the additional intervention of an appendectomy [10].

Meigs syndrome typically presents with symptoms that greatly affect the quality of life and raise significant suspicion for malignancy. Clinicians need to recognize Meigs syndrome as a possible benign cause each time the constellation of pleural effusion, ascites, and an ovarian mass is encountered. The proper surgical treatment and timely management of this syndrome will significantly improve the patient's quality of life.

Conflicts of Interest

The authors whose names are listed above certify that they have no affiliations with or involvement in any organization or entity with a financial interest or non-financial interest in the subject matter or materials discussed in this case report.

Funding Statement

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Patient Consent

Informed written consent for publication of this case report from the patient obtained. The completed consent form is available upon request.

References

1 Budicin JC, Marine WC (1962) Jr. Meigs' syndrome: Report of a typical case. Calif Med 96: 277-280.

2 Mohammed SA, Kumar A (2021) Meigs syndrome. StatPearls Publishing, Florida, USA.

3 Saha S, Robertson M (2012) Meigs' and Pseudo-Meigs' syndrome. Australas J Ultrasound Med 15: 29-31.

4 David R, Daniel G (2103) Ovarian mass, pleural effusion, and ascites. J Bronchol Int Pulmonol 20: 48-51.

5 Meigs JV, Cass JW (1937) Fibroma of the ovary with ascites and hydrothorax. Am J Obstet Gynecol 33: 249-326.

6 Kortekaas KE, Pelikan HM (2018) Hydrothorax, ascites and an abdominal mass: not always signs of a malignancy: Three cases of Meigs' syndrome. J Radiol Case Rep 12: 17-26.

7 Cho SM, Byun JY, Rha SE, Jung SE, Park GS, et al. (2004) CT and MRI findings of cystadenofibromas of the ovary. Eur Radiol 14: 798-804.

8 Compton HL, Finck FM (1970) Serous adenofibroma and cystadenofibroma of the ovary. Obstet Gynecol 36: 636-645.

9 Wasnik A, Elsayes K (2010) Ovarian cystadenofibroma: A masquerader of malignancy. Indian J Radiol Imaging 20: 297-299.

10 Rosendahl M, Oester LA, Hogdall CK (2017) The importance of appendectomy in surgery for mucinous adenocarcinoma of the ovary. Int J Gynecol Cancer 27: 430-436.