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GIANT OVARIAN FIBROMA WITH ASSOCIATED PSEUDO-MEIGS' SYNDROME: A CASE REPORT AND LITERATURE REVIEW.

Gynaecology

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ABSTRACT

Meigs' syndrome is a rare condition characterized by the presence of a benign fibroma of the ovary, ascites and pleural effusion. When either of ascites or pleural effusion is associated with the fibroma it is termed pseudo-Meigs' syndrome. Though fibromas are the most common benign solid tumours of the ovary, they rarely present in clinical practice and diagnosis is made difficult by symptoms that usually mimic disseminated malignancy. The gold standard of treatment is laparotomy, definitive diagnosis is by histology, and by definition of the syndrome, the symptoms resolve after removal of the tumour and the patients become asymptomatic. We present a patient with a giant ovarian fibroma with associated pseudo Meigs syndrome who was successfully managed without any complications.

KEYWORDS

Giant ovarian cyst; Meigs syndrome; Abdominal distention; Laparotomy

INTRODUCTION

In the current era of medical practice, giant ovarian tumours have become rare due to early discovery on routine check-ups, and management of these tumours is based on the age of the patient, the size and histopathology of the tumour. [1,2] Ovarian fibromas are the most common benign solid tumours of the ovary (1-4%). Typically, they are detected in middle aged women, [3,4] and are often difficult to diagnose preoperatively. They are commonly mistaken for uterine fibromas, because of their similar clinical, pathological and ultrasonic features, as well as complications [5,6], Sometimes they are thought to be malignant ovarian tumours because of accompanying ascites. The presence of a benign fibroma (or a fibroma-like tumour) of the ovary, in the presence of ascites and pleural effusion is termed Meigs's syndrome [7,8]. If either ascites or pleural effusion is present, it is defined as incomplete or pseudo-Meigs' syndrome [7,8]. The peculiar characteristic of this tumour is the complete reabsorption of the excess fluid after the surgical resection [7].

We present a case of a giant ovarian fibroma with associated Pseudo Meigs syndrome, which was managed successfully without any complications.

Case

A 49-year-old woman was referred from the Military Hospital, Makurdi to the Gynaecological clinic of the Benue State University Teaching Hospital (BSUTH), Makurdi. The patient was in apparent good health until 9 months prior to presentation when she developed lower abdominal pain, radiating to the right flank and right leg. There were no known aggravating or relieving factors. The abdominal swelling started about the same time. It was initially small but had increased progressively over time. There had been history of weight loss, bilateral leg swelling, loss of appetite, urinary frequency, menorrhagia. There was no change in her voice and no abnormal hair growth.

She had myomectomy done three (3) times in 2007, 2009 and 2017 respectively, and had 4 units of blood transfused in the third surgery. She had a total of five pregnancies that resulted in one normal term delivery and 4 miscarriages.

Her general condition was good with normal vital signs except that she was dehydrated with bilateral pitting pedal and leg oedema up to both knees. There was no noticeable lymph nodes enlargement.

The abdomen was distended with a mass corresponding to 50 weeks gestation [Figure 1]. The mass was mildly tender, firm and slightly mobile. It was not fixed to overlying skin or surrounding structures. The kidneys and liver were difficult to palpate. There was moderate ascites. Her hepatic and renal functions were normal and complete blood count showed haemoglobin of 12 g/dl, Packed Cell Volume of 36% and Platelet count of 218000/mm^3. Chest radiography showed normal lung field and cardiac shadow. Abdominopelvic Ultrasound Scan showed a huge mass with some area of cystic degeneration arising from the pelvis and extending upward to the right hypochondrium, epigastric and left hypochondrial region. On Intravenous Urogram, the scout film showed a soft tissue mass with focal areas of calcification arising from the pelvis. There was bilateral prompt excretion of contrast and the outlined ureters were normal with no backpressure changes. Abdominal CT scan showed a complex right adnexa mass and heterogenous uterine fibroid masses. The chest X-ray was essentially normal.

On exploratory laparotomy, there were moderate adhesions involving the tumour, bowel, the anterior abdominal wall and the anterior surface of the bladder. The peritoneal cavity was free of tumour seedlings. There were about 3 litres of ascitic fluid. Multiple fibroid seedlings were seen on the uterus. The intra-abdominal organs were normal except for the huge right ovarian mass measuring 43 cm x 34 cm x 30 cm with solid and cystic components with adhesions between the mass, bowel, uterus and anterior abdominal wall [Figure 2]. The right fallopian tube could not be visualized. The left ovary and the fallopian tubes were normal. The mass was removed separately, then a total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. The estimated blood loss was 2150 mls requiring 3 units of whole blood to be transfused. An abdominal drain was left in place [Figure 3]. During the post-operative period, she was transfused another two units of blood, she was administrated fluids for two days, as well as antibiotics and analgesics for five days. She commenced oral feeding on the second post -operative day. The drain was removed on the fifteenth post-operative day.

Histology report showed a giant mass that was oval to irregular in shape weighing 18 kg and measuring 43cm x 34 cm x 30 cm. Cut section showed a densely, solid greyish white appearance with a whorled surface, feels firm to hard in consistency. On microscopy, the section shows numerous bundles of fibrous tissues, admixed with many areas of densely cellular and proliferating fibroblastic and fibrocystic cells. No malignant cell was seen. Diagnosis was Ovarian Fibroma and the uterine sample was leiomyoma uteri.

She did well and was discharged on the sixteenth post-operation day with a three weeks gynaecologic clinic appointment. She was followed up regularly and by eighteen months later she was alive, she looked healthy with no apparent complication.

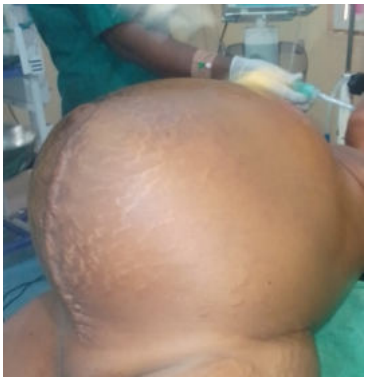

Figure 1. The distended abdomen before commencement of surgery

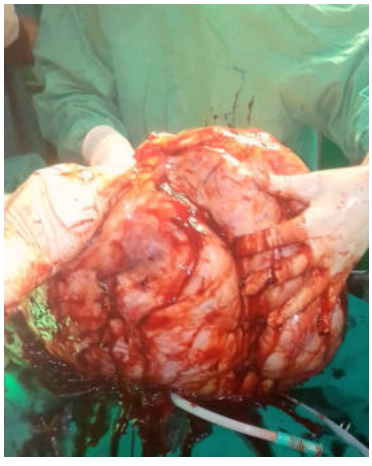

Figure 2. After dissection of bowel off the mass and exteriorisation

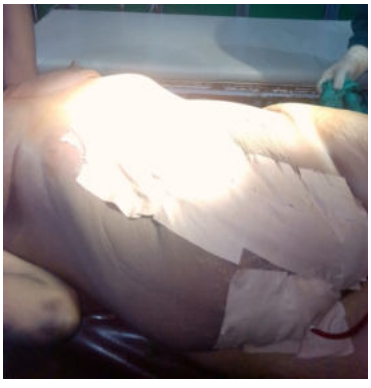

Figure 3. Immediately after the surgery with a drain in place.

DISCUSSION

Meigs' syndrome is a rare condition defined by the presence of a benign fibroma (or a fibroma-like tumour) of the ovary, ascites and pleural effusion. If either ascites or pleural effusion is present, it is defined as incomplete or pseudo-Meigs' syndrome [7,8]. Our patient was diagnosed of pseudo Meigs's syndrome because she had an ovarian fibroma with ascites but no pleural effusion (as the chest radiograph showed no pathology). Fibromas occur at all ages, most frequently during middle age, with an average age of 48 years. [9,10] Our patient was 49 years and falls within the age range when fibromas most frequently occur.

Ovarian fibromas are often asymptomatic despite their large size and are often discovered on routine examination. [4,11] Sometimes, they manifest with abdominal distension, urinary symptoms and abdominal pain.[4] Other common presenting symptoms are dyspnoea (due to pleural effusion), fatigue and weight loss.[7] Our patient presented with all these symptoms including dyspnoea which in this case was not due to pleural effusion (because of the negative chest findings) but probably due to splinting of the diaphragm by the giant mass. One begins to wonder why this patient allowed the mass to reach such a giant size. The fact that she had undergone myomectomy three times with complications of haemorrhage and blood transfusion during the third could have played a part. The fear of death and financial constraints could be the other reasons. Usually, in low- and middle-income countries such presentations of late-stage diseases occur due to the weaknesses of healthcare systems as well as cultural and economic factors.[7]

In ovarian fibroma, ascites is present in 10–15% of cases and pleural effusion is found in only 1% of cases. In our patient too, there was ascites without pleural effusion. Despite the many cases of Meigs syndrome or pseudo-Meigs syndrome published in the literature, the mechanisms of formation of peritoneal and pleural effusions composing this syndrome remain unclear and speculative.[12] The pathophysiology suggests that ascites is secondary either to a transudation through the surface of the tumour that is larger than the capacity of the peritoneum to reabsorb it, or there could be obstruction of the lymphatic vessels of the peritoneum by the ovarian mass. It may also be due to a loss of protein and inflammatory response by the increasing permeability of the neovessels [12] Thus, hydrothorax is formed by fluid moving from the peritoneum to the pleural cavity either through diaphragmatic defects or through lymphatic channels or both [7,14].

As we found in this case, ovarian fibroma is often difficult to diagnose, an accurate diagnosis only being made at the time of surgery. Ultrasound features are usually nonspecific [4] as the tumour might well appear as a complex, degenerated subserosal myoma because of the lack of clarity in the gray-scale ultrasound findings. [9] Again, the tumour might mimic an ovarian cancer because of its solid nature, and the associated ascites and pleural effusions. [4,15] In fact, the definitive diagnosis of ovarian fibroma is usually postoperative with histological confirmation, and complete resolution of the ascites and pleural effusions after resection [4,9].

On CT scan, ovarian fibroma usually appears as homogeneous solid tumours with delayed enhancement [4,16], though in our patient the result showed a complex right adnexa mass probably due to degenerative changes. [4,16] Magnetic Resonant Imaging (MRI) is often needed for further characterization and differentiation of ovarian fibromas from other solid ovarian masses. [4] This was however not done for our patient due to non-availability at the time of presentation.

CONCLUSION

Ovarian fibromas are uncommon but are the most common benign solid tumours of the ovary. This tumour is often misdiagnosed as a uterine myoma on ultrasonographic findings. It is sometimes mistaken for a malignant tumour of the ovary, because of its solid nature and sometimes associated ascites and pleural effusion. Sometimes these tumours can present with giant abdominal masses (as in the case our patient) due to the inherent weakness of our health systems and the poor health seeking behaviour of some patients.

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CONFLICT OF INTEREST.

There is no actual or potential conflict of interest in relation to this case report.

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