ISSN 2073-9990 East Cent. Afr. J. surg. (Online)

Pseudo-Meig's Syndrome associated with huge Uterine Leiomyoma and elevated CA-125- a Case Report.

K. Dahiya, P. Dahiya, J. Sahu
Department of Obstetrics and Gynecology, Pt.BDS, PGIMS, Rohtak
Correspondence to: Dr.K. Dahiya, E-mail:krishnadahiya@rediffmail.com, drkrishnadahiya@gmail.com

Background: ***Pseudo-Meigs syndrome consists of pleural effusion, ascites, and benign tumors of the ovary other than fibromas. These benign tumors include the tumors of fallopian tube or uterus, mature teratomas, struma ovarii, and ovarian leiomyomas. In a postmenopausal woman presence of complex pelvic mass, ascites, pleural effusion and raised tumor markers raises suspicion of malignancy. The case herein presented concerns a 45 years old postmenopausal woman with uterine leiomyoma presenting with pseudo-Meig's syndrome.***
Case report: ***A 45-year-old woman presented with with a huge pelvic mass, pleural effusion and high level of serum CA125. Cytological evaluation for the pleural fluid was performed. She underwent hysterectomy and bilateral salpingo-oophorectomy. The result of pathologic diagnosis was pseudomeig syndrome. The patient was well in postoperative period and paraclinical tests including CA 125 were normal as well.***
Discussion: ***Diagnosis and management will be discussed. In the differential diagnosis of an pelvic mass in a patient presented with ascites, high CA 125 levels and pleural effusions, but with negative cytologic examination we should consider these benign gynecological conditions too.***

Introduction

Pseudo-Meig's syndrome is a rare clinico-pathological entity characterized by presence of a pelvic mass other than a ovarian fibroma, the mass is associated with ascites with or without hydrothorax. In a postmenopausal woman presence of complex pelvic mass, ascites, pleural effusion and raised tumor markers raises suspicion of malignancy[1]. The diagnosis is usually made postoperatively, by the pathologists. On the other hand Meig's syndrome is defined as presence of ascites and hydrothorax in a patient with benign ovarian tumor. All the signs and symptoms of these syndromes disappear with the surgical removal of tumor[2-4]. Bretelle et al[5] though has reported recurrence of Meig's syndrome after an initial surgical treatment.

Case report

We report a case of 45 years old postmenopausal female who presented with eight month history of abdominal distension, difficulty in breathing and a feeling of something coming out per vaginum. She had a past history of laparotomy 4 years back, at some other hospital for some pelvic pathology and complaint of menorrhagia. According to patient they were not able to remove the mass because of dense adhesions. The details of that surgery were not known. She had tubectomy about 20 years back. On her first visit to our institute, her clinical examination showed increased respiratory rate, decreased breath sounds in right hemithorax and dullness on percussion suggesting pleural effusion. Abdomen was tense, having dilated veins on the anterior abdominal wall, everted umbilicus. There was a huge mass filling almost whole of abdomen reaching up to xiphisternum. Flanks were full. Vaginal examination showed procidentia may be because of increase intraabdominal pressure. Her investigations revealed normal haemogram, renal function tests and liver function tests. CA-125 was slightly raised to 228.5 U/ml.

X-Ray of the chest showed right sided pleural effusion (Figure 1). Ultrasonography (USG) showed right sided pleural effusion, large heteroechoic abdominal mass containing solid and cystic components. The mass was arising from the pelvis; the uterus and ovaries could not be made out separately from the mass. Pleural fluid was exudative and cytological examination showed mesothelial cells, neutrophil, few macrophages and negative for malignant cells. USG guided FNAC of abdominal mass was inconclusive for any diagnosis.

ISSN 2073-9990 East Cent. Afr. J. surg. (Online)



Figure 1. Preopertive X Ray chest showing pleural effusion



Figure 2. Clinical photograph showing huge leiomyoma



Figure 3. Postoperative X Ray chest showing resolution of pleural effusion

The patient underwent a laparotomy, there was mild ascites, whole of abdomen was filled with a mass arising from pelvis reaching up to xiphisternum. Anteriorly, laterally and superiorly it was adherent to abdominal wall with mild to moderate adhesions. There was hardly any apace to see intraabdominal structures and origin of mass. Slowly after adhesiolysis a mass with varigated consistency was seen arising from fundus of uterus and reaching up to xiphisternum. Both ovaries and fallopian tubes were normal. Total abdominal hysterectomy with bilateral salpingo-opherectomy was done (Figure 2). Histopathological examination showed intramural leiomyoma of size 30cm × 30cm × 12cm with areas of cystic and myxoid degeneration. Microscopy confirmed intramural leiomyoma, cervix could not be made out separately,

ISSN 2073-9990 East Cent. Afr. J. surg. (Online)

ovaries and fallopian tubes were unremarkable. Her post-operative period was uneventful. Follow-up at six weeks showed resolution of pleural effusion, ascites and other symptoms (Figure 3).

Discussion

Pseudo-Meig's syndrome is characterized by ascites and often pleural effusion caused by pelvic tumor other than ovarian fibroma. Tumors associated with pseudo-Meig's syndrome are usually found in female genital tract. Most commonly associated tumor is leiomyoma, which is found in uterus or broad ligament[6]. Other reported ovarian tumors responsible for pseudo-Meig's syndrome are struma ovarii tumors, mucinous or serous cystadenomas, germ cell tumors and ovarian metastasis from colon and stomach cancers[7].Uterine leiomyomas are most commonly reported cause of pseudo-Meig's syndrome. They usually manifest with abdominal distension due to enlarging mass and ascites. Respiratory distress can occur due to hydrothorax[8]. Ascites results from mechanical irritation of the peritoneum and the leakage of intratumoral fluid from the degenetrated leiomyoma.

As the leiomyoma enlarges, it outgrows its blood supply resulting in various types of degeneration. The pleural effusion in the cases of ovarian tumors is usually exudative as liquid moves from the peritoneal cavity to the pleural cavity through diaphragmatic defects of lymphatic channels. It is usually located on the right side. About 70% of para-ascitic effusions are on the right side, 15% are on left side and 15% are bilateral[9,10]. The cytological exam of the ascitic and pleural liquid in patients with ovarian tumors should be performed in order to differentiate between reactive processes and tumor spread. Although the detection of malignant cells is a marker of malignant disease and a sign of poor prognosis, the benign effusions don't affect neither the stage of the disease nor the prognosis of the patient [11].

Some authors[4,12,13]emphasize th at an ovarian mass with pleural and abdominal effusion doesn't always represent an advanced stage malignancy, not even in presence of high serum levels of CA-125. Elevation of CA-125 (above 35 mIU/mL) can be associated with several benign conditions as: endometriosis, leiomyoma, pregnancy, pelvic inflammatory disease, as well as diverse malignancies[12-15]. In the present patient this tumor marker was raised. Chourmouzi et al[16] has suggested the role of MRI in diagnosis of leiomyoma in setting of pseudo-meig's syndrome. If MRI can demonstrate the continuity of adenexal mass to the adjacent myometrium then diagnosis of leiomyoma can be established. The ability of MRI to visualize normal ovaries, even in the presence of an enlarged, myomatous uterus, may aid in determining the origin of the pelvic masses by excluding a diagnosis of ovarian neoplasm.

Conclusion

Pseudo-Meig's syndrome should be considered as a rare differential diagnosis for pleural effusion and ascites. Patients with pseudo-Meig's syndrome may present a diagnostic problem as they masquerade as carcinoma with malignant effusions. CA-125 is not a reliable marker in this setting. Role of MRI is yet to be established. Thus they should always undergo exploratory laparotomy. Surgical therapy has a very important role for the complete remission of the disease in cases of benign tumors, and for the remission of pleural effusion and ascites in cases of malignant tumors.

References

1. Mitrou S, Manek S, Kehoe S: Cystic struma ovarii presenting as pseudo-Meigs' syndrome with elevated CA125 levels. A case report and review of the literature. Int J Gynecol Cancer 2008; 18(2):372-375.
2. Giannacopoulos K, Giannacopoulos Ch, Matalliuotakis I, Neonaki M, Papnicolaou N, Koumantakis E. Pseudo-Meigs syndrome caused by paraovarian fibroma. Eur J Gynecol Oncol 1998; 19(4): 389-90.
3. Tarnowski B, Krolewski P. True and pseudo-Meigs syndrome. Ginekol Pol 1998; 69(11): 813-6.

ISSN 2073-9990 East Cent. Afr. J. surg. (Online)

4. Santangelo M, Battaglia M, Vescio G, Sammarco G, Gallelli G, Vetere A, Soommella L, Triggiani E. Meigs´ syndrome: its clinical picture and treatment. Ann Ital Chir 2000; 71(1): 115-9.
5. Bretelle F, Portier MP, Boubli L, Houvenaeghel G. Recurrence of Demons-Meigs´ syndrome. A case report. Ann Chir 2000; 125(3): 269-77.
6. Buckshee K, Dhond AJ, Mittal S, Bose S: Pseudo-Meigs' syndrome secondary to broad ligament leiomyoma: a case report. Asia Oceania J Obstet Gynaecol 1990; 16(3):201-205.
7. Zannoni GF, Gallotta V, Legge F, Tarquini E, Scambia G, Ferrandina G: Pseudo-Meigs' syndrome associated with malignant struma ovarii: a case report. Gynecol Oncol 2004; 94(1): 226-228.
8. Kebapci M, Aslan O, Kaya T, Yalcin OT, Ozalp S: Pedunculated uterine leiomyoma associated with pseudo-Meigs' syndrome and elevated CA-125 level: CT features. Eur Radiol 2002; 12(Suppl 3):S127-S129.
9. Sahn SA. The pleura. Is Rev Respir Dis 1988; 138: 184-234.
10. Colectivo de autores. Manual Merck 10ª ed., edición del Centenario. Madrid, Harcourt. 1999. Sección 6 Neumología, capítulo 80 Enfermedades de la pleura. Versión HTML.
11. Wiatrowska B, Krajci P, Berner A. Pseudo-Meigs´syndrome. Tidsskr Nor Laegeforen 2000; 120(3): 364-6.
12. Rozier R, Berger A, Cugnenc PH. Meigs´ syndrome: is it possible to make a preoperative diagnosis? J Gynecol Obstet Biol Reprod 1998; 27(5): 517-22.
13. Bognoni V, Quartuccio A Jr, Quartuccio A. Meigs´syndrome with high blood levels of CA 125. A clinical case and review of the literature. Minerva Ginecol 1999; 51(12): 509-12.
14. Vasilev SA, Schloerth JB, Campeau J, et al: Serum CA-125 levels in preoperative evaluation of pelvic masses. Obstet Gynecol 1988; 71:751-756.
15. Zurawski VR Jr, Orjaseter H, Andersen A, et al: Elevated serum CA-125 levels prior to diagnosis of ovarian neoplasia: Revelance for early detection of ovarian cancer. Int J Cancer 1988; 42:677-680.
16. Chourmouzi et al., Magnetic resonance imaging findings in pseudo-Meigs' syndrome associated with a large uterine leiomyoma: a case report Journal of Medical Case Reports 2010, 4:120.