Endometriosis Ascites: A Case Report

Joann Samora-Mata, MD, Joseph R. Feste, MD

ABSTRACT

This is a case presentation of an unusual nature, a 43-year-old Hispanic female, multigravida presenting with physical findings of massive ascites. In most instances, the presence of massive ascites is associated with malignancies, tuberculosis or perforated viscus. In this case, the diagnosis of extensive endometriosis with ascites is reported as a very rare complication of the disease.

Key Words: Laparoscopy, Endometriosis, Ascites.

INTRODUCTION

Endometriosis associated with massive ascites is sufficiently rare with less than 20 cases being reported since 1954. Most cases of hemorrhagic ascites are found in patients with underlying malignancies, such as hepatoma or ovarian carcinoma, in tuberculosis, or with a perforated duodenal ulcer. Endometriosis, however, is an exceptionally rare cause.

CASE REPORT

A 43-year-old Hispanic female Gravida 3 Para 3 was transferred from an outlying hospital with complaints of acute onset abdominal pain located primarily in the right lower quadrant. The patient described the pain as being sharp in intensity. It was not associated with any physical activity. Bowel movements were normal, and she denied nausea or vomiting. Her only previous complaint had been generalized abdominal bloating since 1990.

She was admitted through the emergency room at the outlying hospital where she underwent extensive evaluation. Laboratory investigations revealed a normal initial complete blood count (CBC) with an increase in white blood cell count (WBC) to 15 900 thousand, containing 91% polymorphonuclear neutrophiles, 6% lymphocytes, 2% bands, and 1% monocytes, on hospital day two. The patient was transferred on this date and taken to surgery within two hours of admission. The preoperative white count was down to 11 800 with a similar differential. Urinalysis with culture and sensitivity was negative for infection. Chem 7 and liver function tests were normal. BHCG was negative. Chest X-ray revealed right lower lobe subsegmental atelectasis. Abdominal flat plate revealed nonspecific gas pattern. Pelvic ultrasound demonstrated a complex mass in the cul-de-sac with septations extending into the right lower quadrant of the abdomen as well as a significant amount of intraperitoneal fluid in the pelvis and upper abdomen.

The patient was hospitalized for two days. Despite Demerol injections every three hours, her pain did not subside. She was placed empirically on Cefotan 1 gm every 12 hours 24 hours prior to transfer to Woman’s Hospital. In general, the patient’s clinical picture was
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worsening with no evidence of specific etiology for her abdominal pain. Consultations were obtained, and she was transferred to a tertiary care hospital for further care.

Her medical history was significant in that she had been diagnosed with Stage IV endometriosis and extensive pelvic adhesions. She had undergone a laparoscopic procedure in 1990 for vaporization of endometriosis and a left salpingo-oophorectomy. On her admission to the hospital, she had a markedly distended, tender abdomen. Bowel sounds were hypoactive. Diffuse rebound tenderness and a fluid wave were present. She was fairly anxious. Pelvic examination was difficult to access uterus and adnexa secondary to distension. She was transferred to the operating room within two hours of admission. The working diagnosis at that time was a ruptured endometrioma vs ruptured ovarian cyst.

Open laparoscopy revealed the large amount of brown, greenish fluid in the pelvis and abdomen. An exploratory laparotomy was performed. Multiple endometrial implants were present throughout the anterior abdominal wall, omentum, small and large bowel, as well as the pelvic organs. The total ascitic fluid measured approximately 2000 cc. The fluid, although not sent for cell block and cytology, had the appearance of a transudate rather than exudate. Cultures of the fluid were negative. Once the fluid was aspirated, the pelvis was evaluated more clearly and a ruptured endometrioma was noted on the right ovary. There was no evidence of bowel perforation. A total abdominal hysterectomy and right salpingo-oophorectomy were performed. Final pathology revealed proliferative endometrial pattern, myometrium with indistinct nodular areas of adenomyosis and leiomyoma right ovary, which measured 4x5x7 cm containing a 5 cm ruptured endometrioma without evidence of an adjacent functional cyst. There were no signs of inflammation in any of the pelvic tissues examined.

DISCUSSION

The simultaneous occurrence of ascites and endometriosis is rare. The first case was reported in 1954 by Brews. The combination of pleural effusions is even more rare with fewer than ten cases in the world literature. The exact cause for ascites associated with endometriosis remains obscure. Bernstein et al in 1961 proposed a mechanism whereby the rupture of chocolate cysts release blood and endometrial cells into the peritoneal cavity. The formation of ascites and dense adhesions are the result of irritation on serosal surfaces caused by free blood in the peritoneal cavity. Ascites has also been found in extensive endometriosis without rupture of chocolate cysts. Theoretically, transdiaphragmatic lymphatics allows spread of ascitic fluid into the pleural cavity, as seen with Meig's syndrome.

In reviewing cases since 1954, the patients were generally young with an average age of 27 years (Table 1). The majority of patients were nulliparous. The most common presentation was increasing abdominal girth, often accompanied by pain and dysmenorrhea. The average amount of ascitic fluid was 3,404 cc with the fluid varying between 150 to 7500 cc. The fluid was characteristically dark brown or bloody. Cytology was negative for malignancy. Pleural effusions were present

| Table 1. | Patient characteristics in cases with endometriosis with ascites. |
|----------|---------------------------------------------------------------|
| No. of patients | 18 |
| Mean age (range) | 27 (19-47) |
| Major symptoms | |
| abdominal pain | 5/18 |
| increased abdominal girth | 10/18 |
| dysmenorrhea | 3/18 |
| Mean ascitic volume (range) | 3404 (150-7500) |
| Associated pleural effusion | 6/18 |

| Table 2. | Treatment Options. |
|----------|-------------------|
| Surgical: | TAH/BSO |
| USO/BSO |
| Psuedo Pregnancy: | Norethisterone |
| Depo Medroxy progesterone |
| Estrogen/progesterone |
| Psuedo Menopausal: | Danazol |
| GnRH Agonist |
in 33% of the reported cases. The present case report demonstrated similar findings on presentation to the hospital.

The treatment of choice for a ruptured endometrioma is yet to be established (Table 2). The most definitive therapy is surgical with hysterectomy and removal of both ovaries. This method, however, seems too radical for women wishing to preserve their fertility. As a consequence, medical therapy with hormonal management has been attempted. Hormonal therapy includes progestin, progestin and estrogen, depomedroxyprogesterone acetate, danazol, or GnRH agonists.

CONCLUSION

The physician must consider endometriosis in the differential diagnosis whenever both ascites and a pelvic mass are found in the same patient. Pleural effusion may be associated with endometriosis, but this finding is very rare. The definitive therapy appears to be surgical castration since no recurrence of ascites or progression of endometriosis has been reported in the management. However, ascites has been suppressed with hormonal therapy, and this appears to be promising in the treatment of this complication, especially for women wishing to retain their fertility.

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