Case report

An unusual complication of Dermoid cyst

P. Sharma, C. P. Pandey, B. Shrestha, S. Ranabhat, N. Thapa, A. Shrestha

Department of Radiology and Imaging, General Surgery, Obstetric and Gynaecology, Pathology, Nepalgunj Medical College Teaching Hospital Kohalpur, Banke

Correspondence to: Dr. Prakash Sharma, Lecturer, Department of Radiology and Imaging Nepalgunj Medical College Teaching Hospital, Banke, Nepal

e-mail: prakashshrm@yahoo.com

Abstract

Superinfection with abscess formation is a rare complication of mature cystic teratoma. It should be suspected whenever a patient with a documented pelvic mass develops a febrile illness following a retained placenta.

Key words: Infection, Dermoid Cyst

Introduction

Mature cystic teratoma are tumors derived from more than one germ layer, frequently all three. Mature Cystic teratoma commonly referred to as dermoid cysts are the common benign ovarian neoplasm. They accounts for 15% to 25 % of ovarian neoplasm and 10% to 15 % are bilateral. [1] Sometimes they can be complicated by torsion, rupture, malignant transformation, fistula formation and superinfection. Infection is one of the rare complications. We report right ovarian dermoid with superinfection following retained placenta. To the best of our knowledge Superinfection following retained placenta is the first case to be reported.

Case Report:

A 30 years old female presented with swelling in lower abdomen for the last one year, Pain in the abdomen for 16 days and low grade fever for 16 days. She gave history of delivery of a baby 18 days back. It was home delivery. Placenta was retained for 3 days after which it was spontaneously delivered. On examination she was anemic; there was a firm tender fixed mass in hypogastrium. On percussion tympanic note was present over the swelling. Per vaginal examination reveled a large mass anterior to the vagina. Hematological examination showed Haemoglobin of 9 gm/dl. Total leucocyte count was 19,300.Differential count reveled neutrophilia. Rest of the biochemical examinations were with in normal limits. Ultrasonography showed a large abdominopelvic cystic mass with echogenic debris within it. (Fig 1)

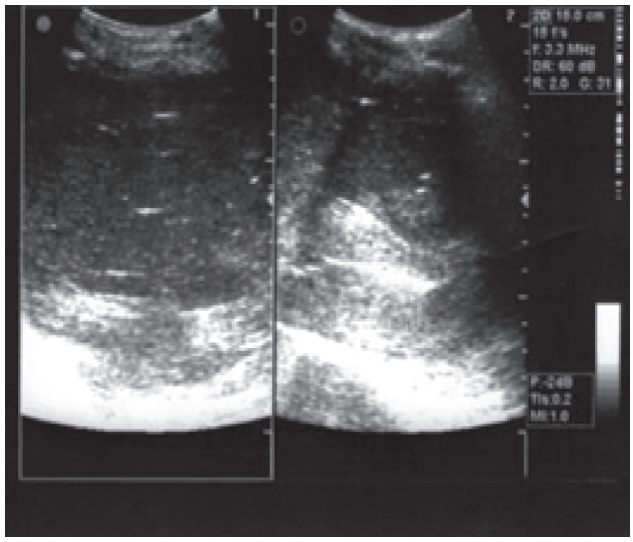

Fig. 1: Ultrasound of the pelvis showing large cystic mass with fluid -fluid level. Linear echogenic structure representing hair noted within it.

The cyst also contained air within it, which gave artifacts while scanning anteriorly over it. Fluid- fluid level was also noted within it. CT scan of the abdomen and pelvis showed a large cystic lesion with air, fat and fluid levels. There was no evidence of calcification within it. After IV contrast the lesion showed enhancement of wall. Bowel loops were displaced laterally. Uterus was displaced posteriorly and urinary bladder was compressed and displaced inferolaterally to the left. (Fig 2)

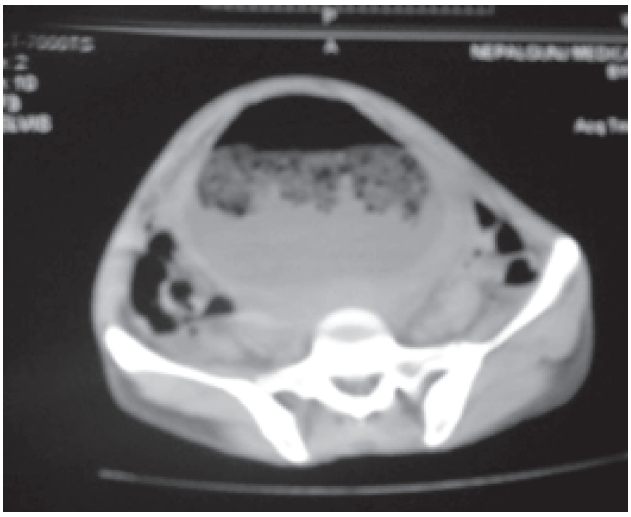

Fig. 2: CT scan Pelvis Showing a large well defined cystic lesion with air, fat and fluid level. Bowel loops are displaced laterally

Patient was taken for laparotomy. Cyst was adherent to the adjacent bowel loops and was arising from right ovary. After dissection cystectomy along with right salpingectomy was done. Opening of the cyst reveled thick foul smelling pus, few strands of hair and cheesy material (Fig 3).

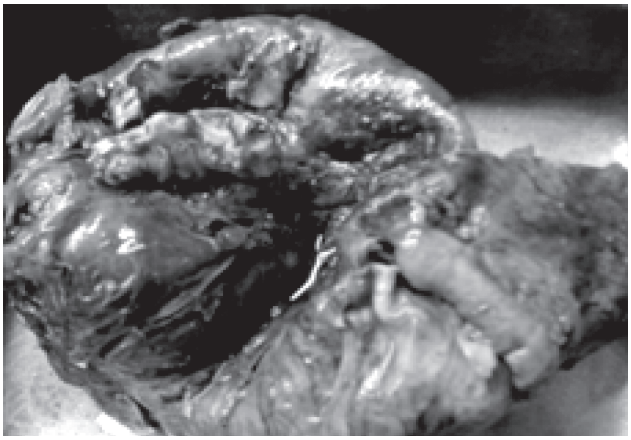

Fig. 3: Cut opened thick wall cyst with areas of greasy materials within its wall

Histopathological findings were diagnostic of dermoid cyst (figure 4). Patient was discharge after an uneventful post operative period.

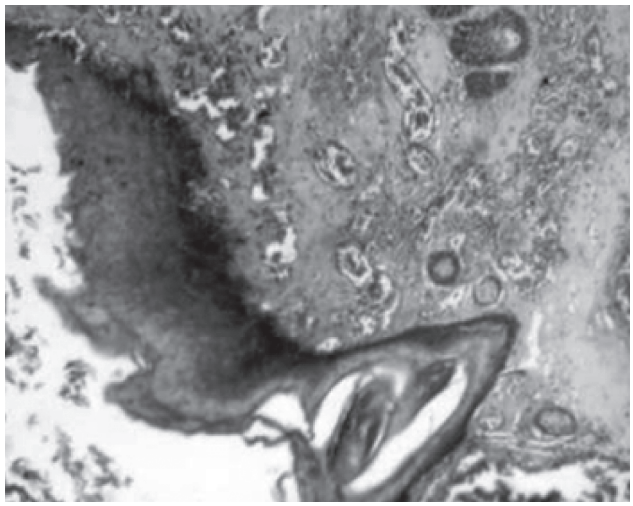

Fig. 4: Microscopic examination of cyst wall shows skin with adnexal structure

Discussion

Retained product of conception and low socioeconomic status are risk factors for endometritis in puerperium. Endometritis is usually polymicrobial with a mixture of aerobic and anaerobic organisms. [2] It is possible that after breaking the cervical mucous barrier, infection of products of conception was followed by bacterial migration to the tubes and ovaries, and subsequent colonization of the dermoid cyst.

Superinfection is a rare complication of dermoid cyst. Only few cases have been reported in the literature. In 1986 Turner et al. reported a case of a torsed infected dermoid cyst with concurrent ectopic pregnancy [3]. In 1987, Melato et al. from Italy reported a case of schistosomiasis in a cystic teratoma of the ovary [4].In 1993; Bouedec et al. from France described a case of an ovarian abscess with an intrauterine device[5]. In 1998 Uwaydah et al. from Beirut, Lebanon, reported a Brucella-infected ovarian dermoid cyst, which caused initial treatment failure in a patient with acute brucellosis[6]. Similarly in 2007 Janelle Luk et al. reported a case with a tubo-ovarian abscess following a dilation and curettage (D&C) procedure in the setting of an ovarian dermoid cyst[7].

sonographic examination is not usually helpful, mainly due to a great quantity of gas within the mass. However radiography of the abdomen with the patient upright and CT scan is helpful in making the diagnosis of superadded infection in a dermoid cyst.

In our case presence of gas-fluid level along with fat permitted diagnosis of a complicated ovarian dermoid cyst before surgery.

In conclusion, although superadded infection of ovarian dermoid cyst is a rare finding, it should be suspected if patient with dermoid presents with fever and lower abdominal pain.

References

1. Salem S. The uterus and adnexa. In: Carol MR, Stephanie RW, William C, editors. Diagnostic ultrasound. 2nd ed. St. Louis: Mosby; 1998: 555-559.
2. Steer P J. Puerperal sepsis. In: Chamberlain G, Steer P, eds. Obstetrics, 3 rd ed. London:Churchill Livingstone,2001:663-670.
3. Turner RJ, Day PL. Torsed infected dermoid cyst with concurrent ectopic pregnancy. Military Medicine. 1986; **151(3):** 179–180.
4. Melato M, Muuse MM, Hussein AM, Falconieri G. Schistosomiasis in a cystic teratoma of the ovary. Clinical and Experimental Obstetrics and Gynecology. 1987; **14(1):** 57–59.
5. Le Bouedec G, Raynaud F, Glowaczower E, Quibant A, Dauplat J. Ovarian abscess: a case of dermoid cyst with secondary infection. Revue Francaise de Gynecologie et d'Obstetrique. 1993; **88(1):** 23–26.
6. Uwaydah M, Khalil A, Shamsuddine N, Matar F, Araj GF. Brucella-infected ovarian dermoid cyst causing initial treatment failure in a patient with acute brucellosis. Infection. 1998; **26(2):** 131–132
7. Janelle L, Alexander Q, Elizabeth G. The Superinfection of a Dermoid Cyst. Infect Dis Obstet Gynecol. 2007; **2007:** 41473.