CASE REPORT

PROF-1453

OVARIAN DERMOID CYST

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ABSTRACT... Objective: Mature teratoma is the most common germ cell tumor(and the most common tumor) of the ovary,composing more than 20% of all ovarian neoplasms. Super infection of dermoid ovarian cyst is very rare. **Case report:** A 72 years-old woman admitted to the gynecological outpatient clinic because of lower abdominal pain and fever. Gynecological examination and ultrasonography revealed a heterogeneous cystic mass in the right ovary. Abdominopelvic CT scan revealed a Right ovarian mass (15×15 cm) thought to be a dermoid cyst. Right adnexectomy was performed. The pathological evaluation suggested infected benign ovarian dermoid. **Conclusion:** Infection of a mature teratoma is a relatively uncommon event. However, based on our case and others, superinfection with abscess formation should be considered in the differential diagnosis whenever a patient with a documented pelvic mass and fever.

INTRODUCTION

Germ cell tumors constitute 15-20% of ovarian tumors and the majority of them are mature cystic teratomas[1]. Mature teratoma is the most common germ cell tumor(and the most common tumor) of the ovary,composing more than 20% of all ovarian neoplasms and occurring at any age,with a peak incidence in the first two decades of life[2,3].

The clinical manifestation of this slow growing lesion is usually related to its size, compression, or torsion or to a chemical peritonitis secondary to intraabdominal spill of the cholesterol-laden debris. Infection is an uncommon complication of mature cystic teratoma. Herein, we present a case of a benign ovarian dermoid cyst with super infection.

CASE REPORT

A 72 years old woman was admitted to the gynecological outpatient clinic because of lower abdominal pain and fever that had begun twenty days before.

No previous gynecological pathology or complaint and no medical disorder was found. The patient was gravida 9, para 8 and abortion 0[1]. It was ascertained that her last labour was 30 years ago, and that all deliveries were vaginal.

On physical examination her abdomen was soft, distended with a mass up to the level of umbilicus and lower abdominal tenderness . Her temperature upon admission to emergency department was 40°C oral ,with a heart rate of 125,blood pressure of 150/90,respiratory rate of 22 ,and normal oxygen saturation., but there was no muscle guarding or rebound tenderness.

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Gynecological examination and ultrasonography revealed a 12×15 cm heterogeneous cystic mass in the right ovary.

Her white blood cell count was 16700 cells/ml, with 93.8% neutrophils. Hematocrit and biochemical parameters were normal. The results of tumor marker analysis performed preoperatively showed the following values: CA 125 :5 IU/ml (Normal [N]: 0–35 IU/ml).

Abdominopelvic computerized tomography (CT) scan revealed Right ovarian mass (15×15 cm) thought to be a dermoid cyst(see figure 1).

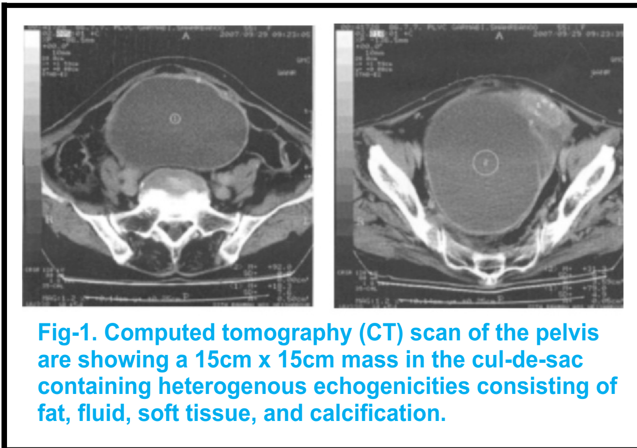

Fig-1. Computed tomography (CT) scan of the pelvis are showing a 15cm x 15cm mass in the cul-de-sac containing heterogenous echogenicities consisting of fat, fluid, soft tissue, and calcification.

Based on this diagnosis, laparotomy was performed. Right ovarian-initiated dermoid cyst 15×15 cm in diameter was not adherent to the other organs. There was no torsion of the right ovary.

The uterus and right adenexa were intact. Frozen section of the specimen suggested benign findings, and the operation was completed. After opening the mass,a large amount of purulent, yellow, foul smelling material was noted.

Microscopic examination revealed that the tumor was composed of bone, glial tissues, and skin, with marked polymorphonuclear leukocyte infiltration (Figure 2-3).

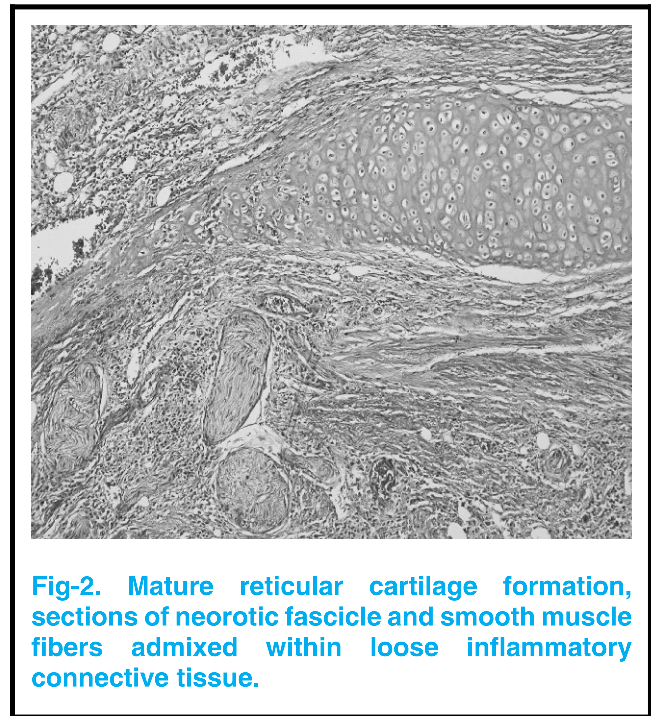

Fig-2. Mature reticular cartilage formation, sections of neorotic fascicle and smooth muscle fibers admixed within loose inflammatory connective tissue.

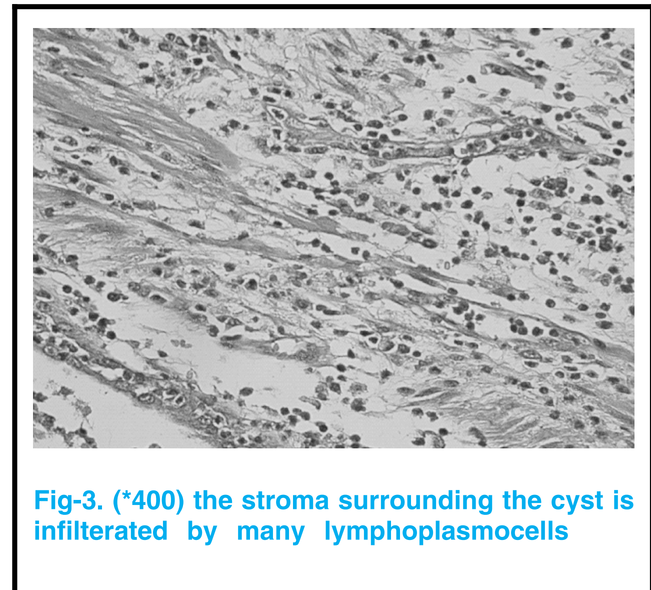

Fig-3. (*400) the stroma surrounding the cyst is infilterated by many lymphoplasmocells

Microbacterial specimen showed mixed anaerobic and aerobic germs. These findings were consistent with a dermoid cyst of the right ovary complicated by superimposed anaerobic infection resulting in abscess formation. No post-operative complication developed and the patient was discharged at the end of the 2nd week

after operation. On the first postoperative day after right oophorectomy, the patient defervesce abruptly and continued to be completely afebrile.

No recurrence was seen in the final follow-up at the post-operative two years.

DISCUSSION

Teratomas account for approximately 15% of all ovarian tumors. They have been reported in patients aged 1–91 years. They are the most common ovarian neoplasm found in adolescence and during pregnancy. While this tumor is usually asymptomatic,47% of patients complain of abdominal pain. Mature cystic teratoma may be complicated by torsion, rupture, and malignant change, but is rarely complicated by infection. We present a post menopausal woman having infected ovarian dermoid cyst.

Infection occurs in approximately 1% of Mature cystic teratoma[3]. The infecting organism is usually a coliform but salmonella, Actinomycosis, Brucella, schistosomiasis has also been reported. Removel of the neoplasm by ovarian cystectomy or ,oophorectomy appears to be adequate therapy.

During our review of the literature, we encountered only 7 reported cases of infected dermoid cysts. All of cases were located in reporoductive age ,(range :20-38 years),our case is the first post menopausal dermoid cyst that is reported. Turner et al. reported a case of a torsed infected dermoid cyst with concurrent ectopic pregnancy[4]. In 1987, Melato et al. from Italy reported a case of schistosomiasis in a cystic teratoma of the ovary[5]. In 1993, Bouedec et al. from France described a case of an ovarian abscess presenting as acute sciatica and pyrexia in a 36-year-old woman with an intrauterine device[6]. Finally, 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[7]. Actinomycosis infection of a dermoid cyst is reported by Luckas[8].

Matsubayashi et al reported a case of Salmonella infection of an ovarian dermoid cyst. The patient defervesce abruptly after oophrectomy, which is similar to our patient's clinical course[9].

Janelle report the case of a patient who presented with a tubo-ovarian abscess following a dilation and curettage (D&C) procedure in the setting of an ovarian dermoid cyst[10].

Our review of the literature as described suggests that infection of a mature teratoma is a relatively uncommon event and It is very rare in post menopause. However, based on our case and others, super infection with abscess formation should be considered in the differential diagnosis whenever a post menopausal patient with a documented pelvic mass develops a febrile illness. Prompt surgical intervention together with appropriate antibiotic therapy is the optimal clinical management in this settings.

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