

Bilateral Ovarian Teratoma: One Parasitic Twisted In-situ and Another Parasitic at the Hepato Renal Space

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ABSTRACT

Parasitic ovarian dermoid cysts are very rare. We report a rare case of bilateral ovarian dermoid cysts with parasitic teratoma at the hepato renal space measuring 11x11x6 cm while the other was twisted measuring 10x6x5 cm. Right ovary and tube were absent. The mass found at the hepato renal space was surrounded by and adherent to the omentum with viable tubal fimbria like structure at upper surface. Histopathologically both masses were confirmed as mature ovarian teratoma. The etiology of parasitic teratoma would be due to torsion followed by autoamputation and reimplantation of the right ovarian dermoid cyst.

Keywords: Ovarian dermoid cyst; parasitic teratoma; torsion.

INTRODUCTION

Mature teratoma (Dermoid Cyst) of the ovary is the most common type of ovarian germ cell tumour of all ovarian neoplasms. They may contain tissue derived from all three germ cell layers. They are usually asymptomatic. They are bilateral in approximately 10% - 15% of cases. The most frequent complication of ovarian dermoid cyst is torsion. Parasitic dermoid cysts as well as coexistent dermoid cysts are very rare. We report a case of bilateral ovarian dermoid cyst - one was twisted and the other was parasitic, localized in the hepato-renal space. The localization of parasitic dermoid ovarian cyst has not been reported yet.

CASE REPORT

A 33 year old female, presented to the OPD with a history of dull aching pain and swelling of the lower abdomen since last 4 years. Her menstrual cycles were regular with an average flow and were painful since last 4 years. Her last menstrual period was more painful which occurred 24 days ago. She also gave a history of nausea, frequent vomiting and loss of appetite since last 24 days. She was a para 3, all living and her last child's age was 5 years, all full term vaginal deliveries at home with no history suggestive of antenatal or postnatal complications. She

did not use any contraceptives ever. She did not give a history of abnormal vaginal discharges. Her bowel and bladder habit were good. She had no significant medical or surgical history as well.

On examination, her general condition was good and was afebrile. On per abdomen examination there was a mass of about 26 weeks gestational size centrally placed, mild tender on palpation. The mass was soft, cystic, with distinct borders but restricted mobility and without venous dilatation on the abdomen. On per speculum examination the cervix was healthy with normal vaginal discharge. There was a cystic mass felt in the lower abdomen and fullness in all the fornices. The uterus was separately felt from the mass and was normal in size. The mass was not moving with the cervical motion. On per rectal examination, the same mass was again appreciated anteriorly, the rectal mucosa was free and no nodularity was felt.

Patient was worked up for ovarian tumour. Investigations such as CBC, coagulation profile, LFT, RFT, serology, urinalysis, ECG, chest x-ray within normal limit. Urine for the pregnancy test was negative. The tumour markers CEA, AFP, serum β -hCG and LDH were within normal limit but there was marginal elevation of CA 125 up to 48 U/ml.

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The ultrasonography of whole abdomen showed a large dermoid measuring 6.9x11 cm at hypogastrium and a small dermoid measuring 3.8x4 cm at the right lumbar region. There was no free fluid and other organs reported as normal.

The patient was planned for laparotomy with the provisional diagnosis of bilateral dermoid ovarian cyst. During laparotomy, left ovarian tumour was enlarged measuring 11x11x6 cm, which was twisted once, with abundant blood clots, debris like material and hairs. There was no right ovary and tube, only bud like projection was present near the right cornue of uterus (Figure 1). Another dermoid cyst measuring 10x6x5 cm was found at the hepato renal space (Figure 2), containing debris like material, hairs and bony hard tissue within it; and it was adherent to and surrounded by the omentum and with viable tubal fimbria like structure on the upper surface (Figure 3). Considering her completed family, with the consent of patient and her family members, total abdominal hysterectomy with left sided salphingo-oophorectomy was done. Dermoid cyst from hepato renal space was taken out. Other abdominal organs were inspected and looked apparently normal. Intraperitoneal lavage was done. Intraoperative and post operative period remained passed uneventfully. She was discharged from hospital on the 5th post operative day with counseling of HRT. Her peritoneal fluid cytology showed no malignant cells. Histopathologically confirmed both masses as mature ovarian teratomas. The hepato renal space mass contained ovarian tissue and a fimbriated portion of the fallopian tube. On follow up, after 6 months, the patient was doing well.

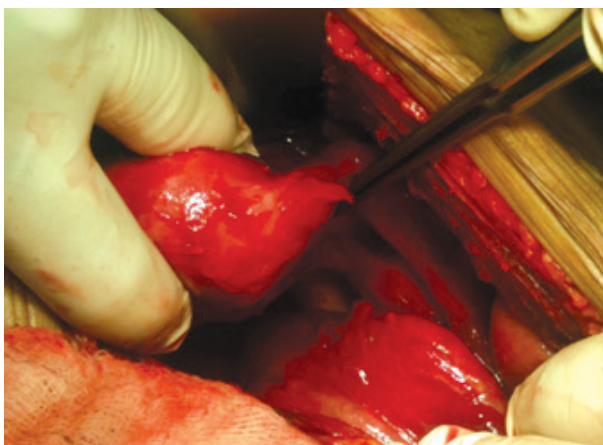


Figure 1. Showing only bud like projection near right cornue of the uterus. There was absence of right ovary and tube.

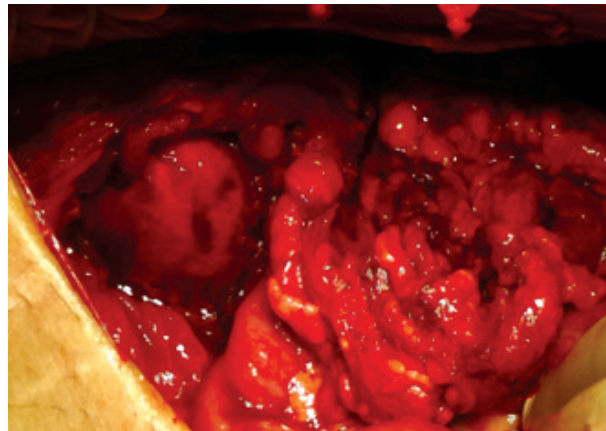


Figure 2. Showing parasitic dermoid cyst at the hepato renal space.

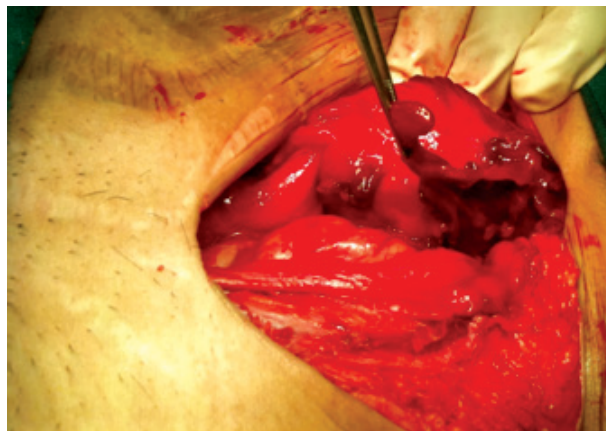


Figure 3. Showing parasitic teratoma with fimbriated portion of the fallopian tube at the surface.

DISCUSSION

Mature teratoma of the ovary is the most common type of ovarian germ cell tumour representing 25 - 30% of all ovarian neoplasms, almost 80-90% seen in the reproductive age group. Târcoveanu E et al in prospective study between 2006 and 2010 among 38 mature cystic teratomas reported only one patient younger than 20 years, where as 52.6% patients belong to the third and fourth decades.¹ Shawki O also in her study reported the mean age of patient being 31.7 years.²

Mature ovarian teratomas are usually asymptomatic, often discovered incidentally on clinical examination, during surgery and medical imaging. But more often they present with vague symptoms which include abdominal pain, fullness, constipation, vomiting, nausea and palpable abdominal mass. Sometimes they present

with acute abdominal pain caused by torsion, rupture, infection, intracystic hemorrhage or necrosis. These mature teratomas sometimes may also cause intestinal obstruction, bowel and bladder injuries. Parasitic dermoid cysts and malignant transformation are the rare complications of these tumours. Less than 1% of dermoid cysts are malignant.

Ovarian dermoid cysts are bilateral in approximately 10% - 15% of cases. Târcoveanu E et al reported bilateral dermoid ovarian tumours in 21%.¹ Most frequent complication of ovarian dermoid cyst is torsion, which accounts approximately 5-15%. Târcoveanu E et al reported quite high incidence (21%) of torsion.¹ Torsion was usually described to happen more in one side. Bilateral torsion of ovarian dermoid cyst is very rare. Yang WC reported a case of bilateral torsion of mature cystic teratomas as well as one parasitic teratoma at the omentum.³ Pepe F⁴ and Sinha R⁵ reported a very unusual case of multiple and bilateral ovarian dermoid cysts.

The incidence of parasitic cystic teratomas at all locations was reported to be 0.4% of all ovarian teratomas and the most common site being the omentum. There are reports of parasitic or coexistent dermoid cysts in the omentum,^{6,7,3} POD,^{7,8,9} anterior abdominal wall,⁷ the median umbilical fold,¹⁰ in an indirect inguinal hernia sac.¹¹ We report a rare case, bilateral ovarian dermoid cysts, one was twisted and other being parasitic, located in hepato renal space, which constitute a very unusual site. There are proposed three theories of parasitic mature teratoma - primary omental teratoma, teratoma from supernumerary ovary and autoamputation and reimplantation of ovarian teratoma on the omentum. In our case there was absence of right tube and ovary from their normal location. There was abundant viable ovarian tissue and viable fimbriated portion of the fallopian tube on hepato renal space mass, which was adherent to and surrounded by the omentum, which justifies auto-amputation and reimplantation as the possible cause of parasitic dermoid cyst in our case. Torsion of the right dermoid cyst might be the preceding event for occurrence of the parasitic dermoid cyst. Treatment should be decided on the basis of age, desire for fertility, tumor size, bilaterality, nature of tumour

and presence of other pelvic pathology. Laparoscopic approach of surgical procedure by an experienced surgeon is safe and effective.

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