

Case Report

Mixed Ovarian Tumor with torsion ovary- A unique presentation

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Abstract: Ovarian torsion is one of the significant causes of acute abdomen in women. The presentation being vague, non specific and necessitates urgent diagnosis and surgical intervention to salvage the ovary. In the present case, the presence of serous cystadenoma in one ovary and mucinous cystadenocarcinoma in both ovaries was observed alongwith torsion of left ovary.

Keywords: mucinuscystadenocarcinoma, torsion ovary, mixed tumor.

Introduction:

Ovarian torsion is one of the significant cause of acute abdomen in women. The clinical presentation is vague, non-specific and necessitates urgent diagnosis and surgical intervention to save the adnexa from getting infarcted. Ovarian tumours, more commonly benign and rarely malignant, are implicated in torsion. Mixed epithelial tumours account for less than 4% (reported incidence varies from 0.5% to 4%) of all ovarian epithelial tumours, and incidence of mixed malignant epithelial tumour is much rarer [1]. Occurance of mixed epithelial tumors is rare, but the presence of mucinous cystadenocarcinoma in both ovaries and serous cystadenoma in one ovary with torsion has never been reported in the literature and this is the first one to be reported to the best of our knowledge.

Case Report:

A 50 yr female, presented to gynae OPD on 2.2.2017 with chief complaint of pain lower abdomen since 2 years which was dull aching, on and off, mild in intensity but from last 2 months pain had increased and was radiating to back with feeling of distention and heaviness lower abdomen, H/o decreased appetite and loss of weight in last 2 months. Past h/o pulmonary tuberculosis 20 yrs back for which patient took ATT for 6 months. On P/A examination a firm mass of 12*10 cm was found occupying hypogastrium and right iliac region. It was tender, mobile, surface smooth lower limit was reachable. No other organomegaly. Abdomen had a doughy feel. Shifting dullness was present. No bruit heard. On P/V examination- Cervix backward, deviated to left side. A firm to hard mass of 4*3 cm felt through right fornix, extending in posterior fornix. Uterus could not be separately defined. Cervical movement was not transmitted to the mass on P/A and vice-versa. Multiple hard nodules in POD felt. USG-uterus 104x70x63 mm with rounded hypoechoic lesions in

anterior wall (13x12mm) and post wall (29x27mm). ET 6mm. Right ovary 63x62 mm with solid and cystic components.

Left ovary – a big cystic lesion with no solid component measuring 119x90 mm. No fluid in cul-de sac. Upper abdomen – normal study. MRI Pelvis - There is a large multiloculated well defined abdominopelvic mass with both solid and cystic components. The mass ms 16.5x8x13 cm. the mass is seen arising from bilateral adnexa and extending above umbilicus. Few mural nodules or excrescences are seen along the wall of cystic components. However no calcification or settled debris seen within it. The mass is abutting the gut loops and descending aorta, however no evidence of invasion seen. On administration of i/v gadolinium heterogeneous enhancement of solid component and mural nodules seen. Uterus A/V 10.5x5.5x5 cm. normal in shape and signal intensity. Endometrial thickness 3.5mm. No free fluid seen in pelvis. No pelvic lymphadenopathy. Bones and muscles in view display normal signal intensity. Mucinous cystadenocarcinoma of ovaries.

RMI INDEX (RMI 2)

U = 3(multilocularity , solid cystic areas, bilateral)

P = 1 (premenopausal)

CA 125 = 2380 IU/L

RMI = 7140

On Staging Laprotomy, approximately 1L ascitic fluid was aspirated. Omentum was studded with growth. All other organs on palpation were normal. Paraaortic lymph nodes not palpable. Left ovary- left ovarian cyst about 15 x 12cm with thick bluish wall, smooth surface there was torsion by 360 degrees which was removed along with left ovary and

fallopian tube as shown in Fig 1..



Fig. 1 showing left ovarian torsion

Right ovary- 6x6cm completely replaced by exfoliating friable growth involving the peritoneum in the right paracolic gutter, broad ligament, uterovesical pouch and pouch of Douglas.

Stage III-C. Subtotal abdominal hysterectomy with B/L salpingo-oophorectomy with infracolic omentectomy done. Cytoreductive surgery could be done only suboptimally.

Histopathology: Ascitic fluid- mucinous cystadenocarcinoma

Right ovary- mucinous cyst adenocarcinoma

Left ovary- mucinous cyst adenocarcinoma with serous cystadenoma

Omentum- metastatic deposits of mucinous cyst adenocarcinoma. The patient is now on chemotherapy.

Discussion:

The WHO Histological Classification for ovarian tumors separates ovarian neoplasms according to the most probable tissue of origin: surface epithelial (65%), germ cell (15%), sex cord-stromal (10%), metastases (5%), miscellaneous (5%). Surface epithelial tumors are further classified by cell type (serous, mucinous, endometrioid, etc) and atypia (benign, borderline [atypical proliferation, low malignant potential] or malignant; malignant may be invasive or non-invasive). Most malignant tumors are surface epithelial (90%). The mainstay of treatment is debulking surgery followed by chemotherapy [2]

Mixed epithelial tumors according to WHO should have a minor component accounting to 10% on microscopy to be called as mixed tumor. The simultaneous occurrence of multiple cancers in the upper female genital tract is well known, but most of them are malignant in nature. Other mixed tumor also well known, i.e. composite tumor which is defined as intermingling of more than two different components in one tumor mass is designated as composite tumor and most famous example is a malignant mixed müllerian tumor [3]

The peak incidence of invasive epithelial cancer is 56-60 years of age. Epithelial tumors form the largest group of ovarian neoplasms (60-70%) and 90% of malignant ovarian tumors. 40% of malignant ovarian tumors are of serous histologic type. Mucinous tumors are somewhat less common than serous tumors and constitute around 20% of all ovarian tumors and 10% of all ovarian cancers. These are more commonly unilateral as compared to serous tumors which have more

tendency for bilaterality. Histogenesis of mucinous tumors, in line with that of serous tumors is by metaplasia of coelomic epithelium that differentiates along endocervical or intestinal type of mucosa. The simultaneous occurrence of multiple primary cancers in the upper female genital tract is well known, but most of them are malignant in nature. In the present case, however, the presence of serous cystadenoma in one ovary and mucinous cystadenocarcinoma in both ovaries was observed [4]. Collision tumor is coexistence of two distinct tumors in the same ovary without any histological intermixing. This tumor is considered a multiple synchronous tumor in a single organ, because these components are separated from each other by stroma without histological admixture. Collision tumor of ovary is quite rare. [5] Collision tumor combination of mucinous cystadenoma with teratoma is most commonly encountered one in ovary. [6]

Ovarian torsion usually occurs unilaterally in a pathologically enlarged ovary, and it is more common on the right side (60%) [7] but in our case it was on left side. Torsion can involve the ovary alone, but it more commonly affects the ovary and oviduct (adnexal torsion). It frequently arises from one of many anatomic changes. Torsion is associated with ovarian tumour in 50–60% of cases. Dermoid tumours are the most common benign tumours associated with torsion. Malignant tumours are much less likely to be associated with torsion compared to benign tumours [8,9] due to the presence of cancerous adhesions that fix the ovary to surrounding tissue. In our case torsion ovary was associated with left ovary with mucinous cystadenocarcinoma along with serous cystadenoma. Adnexal torsion is not limited to women of reproductive age [10], postmenopausal women with an adnexal mass may be affected with torsion. Approximately 17% of ovarian torsion patients present with sudden onset of severe unilateral lower abdominal pain that worsens intermittently over many hours but in our case history of torsion for much longer time was present as it was loosely turned. [11,12]

CONCLUSION:

Morphologically different tumors arising from both ovaries is a rare occurrence with there being no case report of a synchronous bilateral mucinous cystadenocarcinoma with serous cystadenoma. Histopathologist, surgeons, and oncologists to be aware of existence of such rare collision tumours and recognition of such tumours are important as they will dictate appropriate treatment strategies dependent on the individual biological aggressiveness of each of the tumour components.

REFERENCES:

1. Lee KR, Tavassoli FA, Prat J, Dietel M, Gersell DJ, Karseladze AI. Tumours of the ovary and the peritoneum: surface epithelial stromal tumours. In: Tavassoli FA, Devilee P, editors. *World Health Organisation Classification of Tumours of the Breast and Female Genital Organs*. Lyon (FR): IARC Press; 2003. p. 144.
2. Berek and Novaks Textbook of Gynaecology Sixteenth

Edition

3. Lee KR, Tavassoli FA, Prat J, Dietel M, Gersell DJ, Karseladze AI. Tumours of the ovary and the peritoneum: surface epithelial stromal tumours. In: Tavassoli FA, Devilee P, editors. *World Health Organisation Classification of Tumours of the Breast and Female Genital Organs*. Lyon (FR): IARC Press; 2003. p. 144.
4. Guiu XM. Simultaneous carcinomas involving the endometrium and ovaries. *Advances in surgical pathology of the ovary*. 1999;32:287-8.
5. Bige O, Demir A, Koyuncuoglu M, et al. Collision tumor: serous cystadenocarcinoma and dermoid cyst in the same ovary. *Arch Gynecol Obstet*. 2009;279:767–70. [[PubMed](#)]
6. Ajay Kr. Singh J *Clin Diagn Res*. 2014 Nov; 8(11): FD14-FD16
7. Harsh Mohan's Textbook of Pathology
8. Varras M, Tsikini A, Polyzos D, Samara Ch, Hadjopoulos G, Akrivis Ch. Uterine adnexal torsion: pathologic and gray-scale ultrasonographic findings. *Clin Exp Obstet Gynecol*. 2004;31(1):34–38. [[PubMed](#)]
9. Sommerville M, Grimes DA, Koonings PP, Campbell K. Ovarian neoplasms and the risk of adnexal torsion. *Am J Obstet Gynecol*. 1991;164(2):577–578. [[PubMed](#)]
10. Koonings PP, Grimes DA. Adnexal torsion in postmenopausal women. *Obstet Gynecol*. 1989;73(1):11–12. [[PubMed](#)]
11. Fleischer AC, Stein SM, Cullinan JA, Warner MA. Color Doppler sonography of adnexal torsion. *J Ultrasound Med*. 1995;14(7):523–528. [[PubMed](#)]
12. Pena JE, Ufberg D, Cooney N, Denis AL. Usefulness of Doppler sonography in the diagnosis of ovarian torsion. *Fertil Steril*. 2000;73(5):1047–1050. [[PubMed](#)]