

A Case Report of Giant Mucinous Cystadenoma of the Ovary with Multiple Torsions

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Abstract: *This paper details a significant case of ovarian cysts in India. Because of their better technologies, developed countries frequently diagnose these cysts earlier. Women in low-resource communities can put off getting medical help. Before arriving at the hospital, the patient in this study had an 11-month-old mucus-filled cyst, and we were able to remove the giant cyst with several torsions by surgery while preserving fertility. By assuring prompt medical attention, community health workers might have helped identify and follow up with individuals who had experienced atypical abdominal swelling [1, 2]. The study's overall findings underscore how crucial it is to identify big ovarian cysts and make a correct diagnosis in order to avoid mismanagement.*

Keywords: Ovarian Tumors, Mucinous Cystadenoma, Adnexal Mass, Ovarian Torsion, Ovarian Cyst

1. Introduction

It is possible for the ovaries to develop a variety of growths, some benign (harmless) and others malignant (cancerous). There are several subtypes of epithelial tumors, which are the most common form. [2,3] Constituting 10–15% of ovarian tumors, mucinous neoplasms can be classified as benign (mucinous cystadenoma), borderline malignant (possibly cancerous), or malignant (really cancerous). The ovary's surface epithelium is the source of benign tumors known as mucinous cystadenomas. They have a smooth appearance, several compartments (multi-loculated), and the capacity to develop to considerable sizes. The majority of women with these tumors are between the ages of 30 and 50. The symptoms are usually nonspecific and manifest as a big unilateral pelvic lump. Even though they are usually benign, problems can happen. These include ovarian torsion, cancer, bleeding (hemorrhage), and rupture. A Mucinous (mucus-like) fluid can spread throughout the abdomen due to a rupture. The following particular marker levels, such as CA 19-9 and CA-125, are employed

In the diagnosis of ovarian cancer that is Mucinous. [4, 5] Together with carcino embryonic antigen (CEA), these markers' levels can reveal the existence of a tumor. These indicators can also be tracked following surgery in order to evaluate the efficacy of the course of treatment and detect tumor recurrence.

WHO Classification of Ovarian Tumors

Epithelial tumors
Serous tumors
Mucinous tumors
Endometrioid tumors
Clear cell tumors
Brenner tumors
Seromucinous tumors
Undifferentiated carcinoma
Mesenchymal tumors
Mixed epithelial and mesenchymal tumors
Sex cord-stromal tumors
Mixed sex cord-stromal tumors
Germ cell tumors
Monodermal teratoma and somatic-type tumors arising from a dermoid
Germ cell—sex cord-stromal tumors
Miscellaneous tumors
Mesothelial tumors
Soft-tissue tumors
Lymphoid and myeloid tumors
Secondary tumors

2. Case Report

A 33-year-old female P2L2A3 patient arrived at the emergency room complaining of stomach pain that had been present for a day was worsened when she lay down, and was not better with medicine. Vomiting and nausea for a single day in the past. 11 months of growing abdominal distension in the past. History of the copper T that was inserted 11 months ago. No prior experience of hunger decrease or weight loss. Not connected to symptoms related to the bowel or bladder, no history of fever, or burning micturition.

Menstrual History

LMP: 8/06/2023 her regular cycle of 4 days every 28 days culminated in her menarche at the age of 14. Her flow was normal. Not connected to dysmenorrhea or clots.

Pastmedical History

No medical history of diabetes, hypertension, thyroid issues, tuberculosis, epilepsy, asthma, or surgery

Family History

Not having a strong family history of cancers of the ovary, Endometrium, or cervical cancer, Breast or colon cancer.

Physical Examination

The patient was moderately built and well nourished

- Afebrile
- Not anemic
- Not Icteric
- No pedal edema
- No generalized Lymphadenopathy
- Thyroid and Breast – Normal
- Vital signs were within normal limits

**Per Abdomen Examination**

- Moves with respiration no scar or engorged veins
- Lower abdomen distended
- Tenderness present in the lower abdomen
- No rigidity or guarding
- A cystic mass felt up-to 24-week size, tender and mobile
- Lower border not made out

Perspeculum Examination

- Cervix, vagina healthy
- Copper T thread seen through os
- Bleeding P/V +

Pervaginal Examination

- Cervix pointing downwards, Uterus anteverted, unable to find out size of uterus
- Cystic mass felt in all fornices

Per Rectal Examination

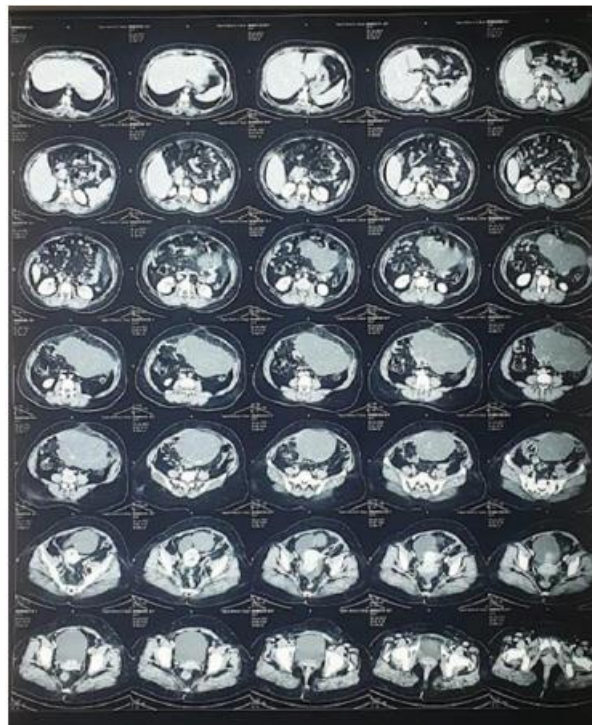
- Rectal mucosa normal
- Uterus normal
- Same cystic mass felt

Ultrasonogram of Abdomen and Pelvis

- **Pelvic Mass:** A large, multiloculated cystic lesion measuring 18.13 x 14.08 cm was identified arising from the pelvis and extending into the epigastric region. The cyst demonstrated thin and thick septations with fine

internal echoes.

- **Vascularity:** Doppler ultrasound revealed no evidence of internal vascularity within the cyst.
- **Uterus:** Normal sized uterus measuring 7.3 x 2.6 cm.
- **Endometrium:** Endometrial thickness within normal limits at 4.2 mm. An intrauterine copper T IUD was present in the lower uterine cavity.
- **Ovaries:** The right ovary was not visualized. The left ovary measured 2.25 x 1.40 cm and appeared unremarkable.
- **Pelvic Fluid:** Free fluid was present within the pouch of Douglas.
- **Adnexal Torsion:** Imaging findings suggestive of right ovarian torsion were identified.

**CECT Abdomen & Pelvis:**

- A 20 x 16 x 10 cm multiloculated cystic lesion with thin calcified septations.
- On contrast, augmentation of solid components in the posterior section of the lesion; twisting of the pedicle containing ovarian arteries observed posterior to the lesion

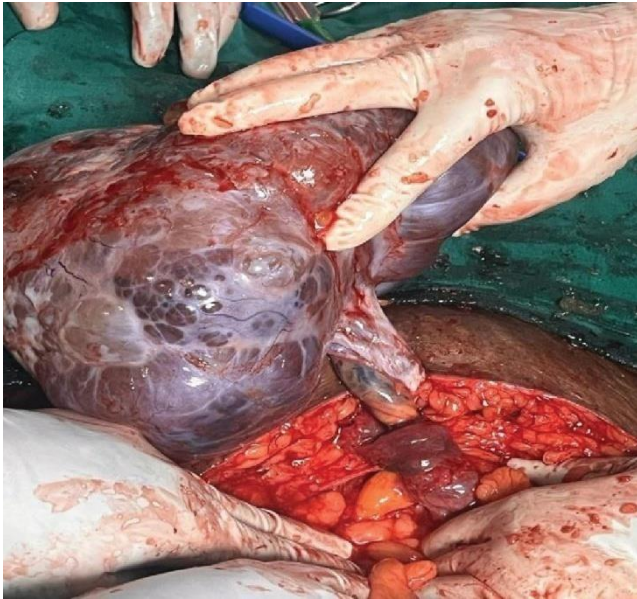
Lab Investigations:

Ca-125 is 107.1 U/ml, while the results of the other blood tests are within normal bounds.

Management: Exploratory Laparotomy with right salphingo-oophorectomy was performed.

Intra OP Findings:

Following an exploratory Laparotomy, a 20 × 16 cm mass with gangrenous and hemorrhagic twisted into five turns of a coil was discovered. Right Adnexal Detorsion with Right Salphingo Oophorectomy. Left ovary and uterus are normal.

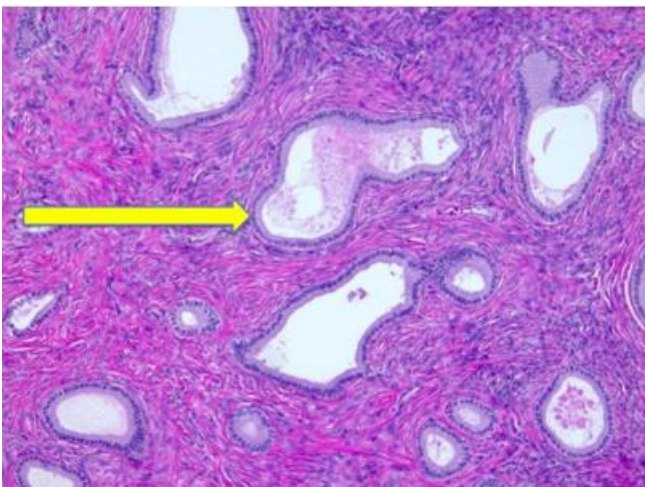


Histopathological Report:

- The dimensions of the cystic mass are 23*20*3 cm, the ovary is 4*3*1 cm, and the tube is 5 cm long.
- The cystic mass's exterior is lobulated, with several dilated veins visible.
- Cut Section: Cyst with several loci the thickest dimension is 1.5 cm.
- Necrotic material appears yellow in focal areas.

Microscopy

- A single layer of columnar epithelium with apical mucus. Focus areas exhibit pseudo-stratification.
- Fibro collagenous tissue and dilated, blocked blood vessels are present in the sub epithelial layer.



3. Discussion

Nowadays, early identification has made big ovarian cancers rare, but they still arise. Though most ovarian cysts are benign, finding one in your ovaries can still be unsettling for some women who may be concerned about cancer. Commonly affecting women in their middle years, mucinous cystadenomas are a benign form of ovarian tumor. These are uncommon in younger women and almost never happen when a woman is pregnant [6, 7, and 8]. These tumors

usually consist of many cysts of different sizes and do not spread to neighboring tissue. Typically, a single ovary is impacted, as was the situation with our patient, whose cyst was located in her right ovary.

A viscous, jelly-like fluid that is high in glycoprotein and contains mucins fills the cyst. This specific cyst had a very huge size. These benign tumors seem under a microscope like a line of tall, non-hairy cells with nuclei at the base and mucin at the top. Based on the cells that produce mucin, three primary types can be distinguished. [9] The first two are always indistinguishable from one other and resemble intestinal and cervix cells. Endometrial cysts are associated with the third type.

The presence of many goblet cells in this instance made the cells most similar to those seen in the intestine. The woman's age, the size of the cyst, and whether the cyst is benign or malignant all influence the course of treatment for ovarian cysts.[10,11] The best line of action for benign cysts is typically ovary excision or surgery to remove the cyst alone (cystectomy). In this instance, the fallopian tube was diseased and the cyst affected the entire right ovary; therefore, both were removed (Salphingo-oophorectomy).

It's crucial to receive follow-up care because some benign tumors can return. For a year, the patient in this instance had visits set up every three months to track her progress.

4. Conclusion

The size, histological type, and age of the patient all affect how an ovarian cyst is managed. Mucinous Cystadenoma of the Ovary: growth rate is 0.12 cm/year for less than 4 cm and 2 cm/year for more than 4 cm. When it comes to conservative surgery, early diagnosis is crucial. For benign lesions, laparoscopy is an adequate method of ovarian cystectomy.

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Ethical Approval: Ethical clearance was obtained from the Institutional Ethical Committee before conducting the research.

Consent:

Written informed consent was obtained from her for the publication of this case report and its accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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