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An Enormous Benign Mucinous Ovarian Cystadenoma: A Case Study and Literature Review

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Abstract

An ovarian tumor is not a singular entity, but rather a very wide spectrum of neoplasms spanning a variety of histological tissues [1]. The most common type of tumors, epithelial tumors, account for 80% of all malignancies.10% of tumors are classified as possibly malignant, 8%–10% are malignant, and 80% are benign. About 8–10% of epithelial tumors are mucinous tumors, which can grow to huge sizes and cover the whole abdominal cavity [2], [3]. We would like to share a case study of a 50-year-old female patient who had a large benign mucinous cystadenoma. The patient was unable to receive medical care and had a tumor that was causing her to have trouble breathing. The tumor reacted amazingly well after surgical resection [4]. After the operation, the patient could resume her regular life.

Keywords*: Huge benign mucinous cystadenoma, Mucinous cystadenoma.*

Introduction

Before puberty, after menopause, and in the extremes of age are uncommon times for benign ovarian mucinous tumours. Between the third and the fifth decades, they are typical [5]. In reality, mucoid cystadenomas can grow to enormous proportions; numerous of the biggest tumours in humans are in this category [1], [6]. These tumours have a smooth, whitish or bluish white exterior and resemble spherical, ovoid, or irregularly lobulated growths when viewed in gross detail [5]. In several places, the wall is so thin that it is translucent. Adhesions to adjacent organs are possible; however, they typically indicate inflammatory adhesions rather than malignant expansion [6]. A small pedicle that houses the tumour's noticeably enhanced supply connects them to the infundibulopelvic ligament.

The cyst's fluid is usually a clear, viscous substance that can be thinning or extremely thick at different periods. A mixing of blood components might give the fluid a brownish or chocolate colour [6]. At body temperature, this fluid is often thin and flows freely, but as it cools, it congeals and turns gelatinous. Since the sliced surface reveals that the cavity is divided into a variety of compartments or locules by septa, these tumours are frequently referred to as multilocular cysts [7].

The characteristic single layer, often undulating outline, of tall, pale-staining secretory epithelium, with nuclei placed at the basal poles of the cells, is what makes mucinous cysts unique under the microscope [8]. Goblet cells are frequently observed, and occasionally even panth and argentaffin cells are noted. Pseudomyxoma peritonei is frequently linked to mucocele in the appendix, ovarian mucinous cysts, and large bowel cancer [7].

Materials and Methods

The history-taking, clinical assessment, laboratory testing, transabdominal ultrasound, and histopathological analysis of the removed

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surgical specimen were the methods used to get the data.

Case Report

A 52-year-old woman who has been married for 30 years, has FTNVD, ST DONE, and has been postmenopausal for 8 years, complained of abdominal pain and distension as well as a decrease in appetite that started 15 days ago.

The patient saw a local private hospital in Chennai, but there was no improvement in their symptoms. 15.51 U/ml for CA 125 and 3.98 U (raised) for CEA. Her vital signs were 124/80 mmHg and 82 beats per minute upon evaluation. A general examination revealed no lymphadenopathy. The results of the breast exam were normal.

On per abdomen examination – soft, uniformly enlarged abdominal mass of 20*20 cm, smooth and cystic consistency with restricted mobility. Abdomen was markedly over distended all over. The skin was overstretched with prominent veins on it. T shaped scar + in lower abdomen (Figure 1).

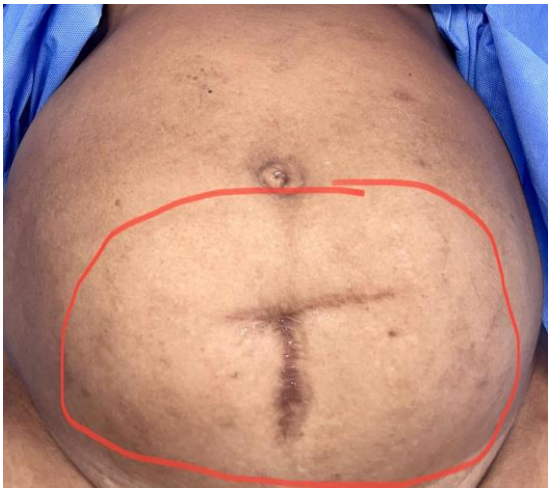

Figure 1. A Giant Pelvi-abdominal Mass Noticed on Abdominal Examination.

Upon palpation, a very large mass that emerges from the pelvis and diffusely extends over the belly and flanks to the epigastrium is felt. Cystic consistency was firm in several areas. With a broad, palpable lump that extends from the pelvic region to the epigastric region and has diffuse, ill-defined boundaries, the lower margins of which are not perceptible. Fluid Thrill had a good outcome.

Every hematological test was normal, and the Pap smear revealed no signs of cancer but was suggestive of an atrophic smear. The results of the CT scan suggested primarily There is a massive, well-defined cystic lesion measuring 26 cm by 21 cm by 15 cm in the abdominopelvic region. It extends from the left hypochondrium to the right adnexa and lacks any visible mural nodules or calcification. [9] The original tissue was not discernible.

Staging laparotomy with Right ovarian cystectomy with frozen section with total abdominal hysterectomy with left salpingo-oophorectomy with appendicectomy done under general and epidural anesthesia.

An incision was made vertically in the midline to access the abdomen. Using cautery, the rectus muscle adhesions to the posterior rectus sheath were released after the sheath was opened. The thinned-out peritoneum then entirely merged with the cyst wall throughout, and in certain locations, the posterior rectus sheath, peritoneum, and cyst wall all fused together to form one layer of the cyst wall. Overstretching caused the peritoneum wall to thin down significantly in some areas. To remove the tumor from the peritoneum, the cyst wall had to be decompressed. 5 cc of peritoneal fluid were sent for cytology.

The tumor was 25*20*18 cm in size and extended from the pelvis to the diaphragm. (Figure 2) Around the cyst, the right fallopian tube extended. uterus large. Ovarian and left tubes are normal. The right ovarian cyst pedicle was clamped, and the cystectomy was performed by ligating and splitting the pedicle. Sample given to HPE.B/L Round ligament sectioned, sliced, and stapled. Cutting and ligating the left infundibulopelvic ligament. The peritoneum's UV fold was found, cut, and the bladder was removed. B/L uterine artery bandaged, ligated, and clamped. Clamp, cut, and ligate the B/L uterosacral ligaments. removed the tumor with success. Ten kilograms in total weight. By ligating the arteries and pedicles, hemostasis is established.

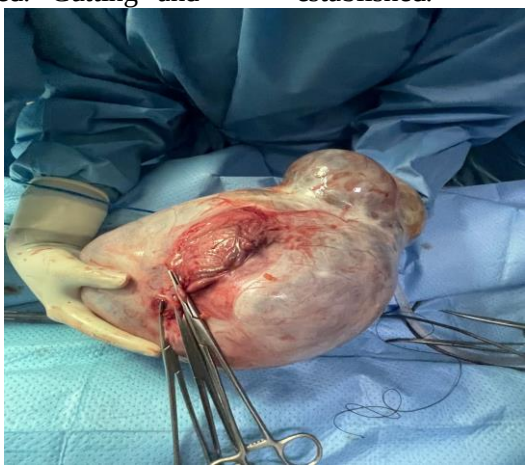

Figure 2. Gross Picture of the Tumour. Picture Shows Smooth Mass Without Any External Growths or Protrusions (25 × 20 × 28 cm in Diameters and 10 kg in Weight).

The tumour was then incised to drain out the fluid inside to send for frozen section biopsy (Figure3, 4).

Figure 3. Draining of the Cyst Fluid to Prepare for Frozen Section Biopsy

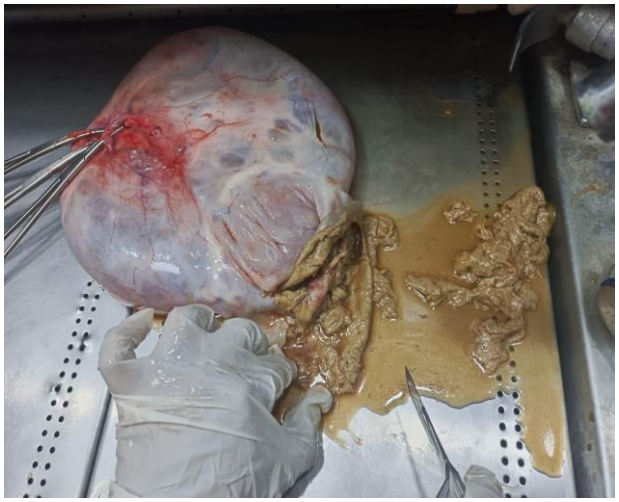

Figure 4. Preparation of the Cyst for Frozen Section Biopsy

Total abdominal hysterectomy with left sided salpingo-oophorectomy with removal of huge ovarian tumour done. The omentum was yellow jelly like. The surgeon explored the bowel to see any other site of involvement of intestine. The frozen section report came as Benign Serous cystadenoma of ovary, so pelvic lymph node dissection was not done. Thorough wash was given.

HPE report -showed Benign mucinous cyst adenofibroma of Right ovary, Adenomyosis, Leiomyoma, Benign endometrial polyp.

Haemostasis was achieved completely, after checking the counts of instruments and sponges. Abdomen closed in layers after keeping the drain *in situ*. Blood loss during surgery was average. Her postoperative period was uneventful. Stiches were taken out and the patient discharged. Patient came for follow up; she was fine and resumed the work.

Result

According to reports, the patient had a rare form of large mucinous cystadenoma.

Discussion

The standard methods for evaluating ovarian mucinous tumors include magnetic resonance imaging, computed tomography scanning, or ultrasound. These ovarian tumors could be thin walled, multiseptate cystic masses [10]. They might have different amounts of solid tissue, such as papillae, malignant tumor cells, or growing stromal tissue. We might be able to determine the tumor's origin with the use of cancer markers [11]. Eighty percent of mucinous ovarian tumors and twenty to twenty-five percent of benign ovarian tumors in general are benign mucinous cystadenomas [12]. The age range for the greatest occurrence is 30 to 50 years old. In five to ten percent of instances, benign tumors are bilateral [13]. About 10% of mucinous ovarian neoplasms are borderline mucinous cystadenomas, which are bilateral in 10% of cases [14].

Large mucinous ovarian tumors have become uncommon in today's medical practice because most cases are discovered by accident during normal gynecological exams or because of pelvic and abdominal ultrasound investigations [15], [16]. Large tumor patients typically exhibit pressure symptoms over the genitourinary system, which results in urine complaints, or pressure over the respiratory system, which results in respiratory embarrassment [17].

Conclusion

The role of imaging modalities such as CT scan and MRI provides a better understanding of the tumor's consistency and its extension into the different abdominal quadrants [18]. The age of the patient, the size, and the

histopathological characteristics of the cyst all influence how ovarian cysts are managed. For benign lesions, conservative surgery such as salpingo-oophorectomy and ovarian cystectomy is sufficient [19]. Understanding the malignant variant of this tumor through the frozen section is crucial for patient care. Similar to large tumors, anatomical planes might get altered; therefore, surgical competence is necessary to avoid complications [20].

Conflict of Interest

None declared

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