

Case Report

A Case Report of Primary Ovarian Mucinous Adenocarcinoma treated at Dr. Akbar Niazi Teaching Hospital, Bara Kahu, Islamabad

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Author's Contribution

¹ Conception of study
¹ Experimentation/Study conduction
¹ Analysis/Interpretation/Discussion
¹ Manuscript Writing
¹ Critical Review
¹ Facilitation and Material analysis

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Abstract

Introduction: This is a case of a patient who had a history of grossly increasing abdominal distension for 6 months. The patient had no symptoms except pressure symptoms with a regular menstrual cycle. She initially was investigated as a case of abdominal distension and indigestion. With increasing size, the discomfort was the main symptom. She attended our Gynaecology Outpatient department and was diagnosed as a case of Large Ovarian mass. The first investigation performed was Pelvic ultrasound and Tumour markers and a Risk of malignancy index were calculated. Her Magnetic resonance imaging with contrast showed a large well encapsulated ovarian mass with no ascites and no metastasis. After getting all the investigations and discussion with the patient a Staging Laparotomy with Total abdominal hysterectomy and bilateral salpingo-oophorectomy was performed, The ureters were stented before laparotomy to avoid damage to the ureters during surgery. She was diagnosed as Stage 1-A at the time of surgery and had an uneventful recovery. Her histopathology report showed a unilateral Mucinous cystadenocarcinoma with negative peritoneal wash and omentum histopathology.

Keywords: Mucinous ovarian carcinoma (MOC), Staging laparotomy, Computerized tomography CT, Total abdominal hysterectomy with bilateral salpingo-oophorectomy, Carcinoma intraepithelial neoplasia (CIN), Carcinoembryonic antigen (CEA).

Case Report

My patient Mrs. K I aged 38 yrs attended our OPD at Dr. Akbar Niazi Teaching Hospital (DANTH), Bara Kahu, Islamabad in August 2018 with a h/o generalized distention of the abdomen and early satiety since 6 months. She was P6 all spontaneous vaginal deliveries. She had a regular cycle of 6/30 days with no associated dysmenorrhea. On examination, she was found to have a huge cystic mass in her abdomen arising from the pelvis reaching her epigastrium. The lower limit of the mass was not reachable. The mass was soft, cystic, fluctuant, and non-tender. She is a known Diabetic on oral hypoglycemic for 2 yrs but with poor control. She did not have any other significant medical or surgical history. She didn't have any family history of Breast or Ovarian cancers and any history of Oral contraceptive use.

Her routine investigations were carried out which included her CBC, LFTs, RFT's were normal. Her HbA1c was 7.2%. Her CXR was clear with normal cardiac shadow and clear lungs with no pleural effusion. An ultrasound abdomen and pelvis along with a contrast CT were performed.

Ultrasound abdomen and Pelvis showed normal-sized uterus with thin endometrial lining, right ovary looked normal while a cystic solid mass was seen filling up the abdomen size 36 cm x 35 cm arising from the left adnexa. There were projections visualized on ultrasound inside the large mass Minimal ascites was seen.

The patient underwent a contrast CT scan abdomen and pelvis as part of the staging procedure to plan the extent of surgery. Films of contrast CT

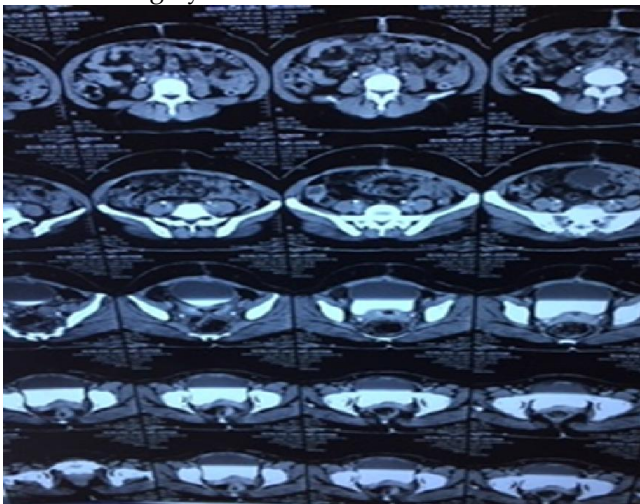


Figure 1: CT Scan report

A huge mass size 36 cm x 35 cm arising from the left adnexa with solid and cystic areas left ovary not seen separately. It is occupying the whole abdominal cavity with an intact capsule with no ascites or suspicion of spread. There are no enlarged lymph nodes. The uterus and right ovary are normal with no evidence of involvement of the urinary bladder or rectum. Kidneys, liver, and spleen are normal.

Management

The patient was counseled along with family regarding the diagnosis and consented to a Staging Laparotomy and Total abdominal hysterectomy and bilateral salpingo-oophorectomy because of the mass size, her age, and complete family. The urologist and surgeon were also requested to review the patient as clinically malignancy was suspected.

She underwent **surgery on 17 September 2018**. The urologist did a cystoscopy and both ureters were stented with double J stents for easy identification of the ureters during surgery. Surgery was performed through a sub umbilical midline incision. On entering the peritoneal cavity no ascites were visualized so peritoneal wash was taken for cytology from Pouch of Douglas. There were no adhesions although the mass was huge it was freely mobile with an intact capsule arising from the left adnexa. The ovarian mass was removed and Total abdominal hysterectomy, bilateral salpingo-oophorectomy, and infra colic omentectomy were performed. No enlarged lymph nodes were encountered during surgery. No drains were kept intraperitoneally. Her uterus, fallopian tubes, and right ovary were grossly normal. Omentum showed some thickening there were no signs of any metastasis in the peritoneal cavity. The abdomen was closed in layers and the skin was closed with interrupted sutures.

She has been surgically staged as **STAGE I A, OVARIAN CANCER**. She had an uneventful postoperative recovery and discharged home in a stable condition on Day 5 with follow-up for suture removal and histopathology report.

Her histopathology report showed Left ovarian cystadenocarcinoma of the mucinous type. normal uterus and right ovary with no evidence of malignancy. Omentum showed inflammatory changes only and peritoneal wash was negative for malignant cells.

She is being referred for Further treatment and Chemotherapy to NORI.

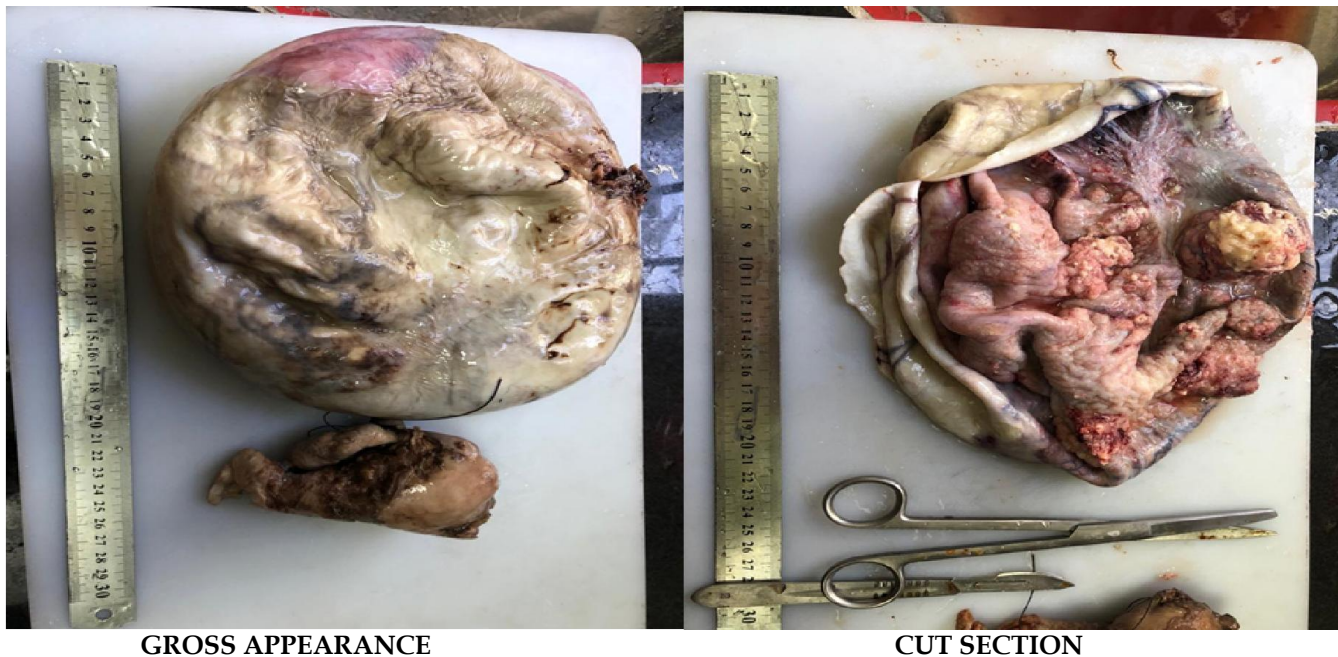


Figure 2:

Discussion

Most of the Ovarian cancers are Epithelial which include the Serous and Mucinous tumors. The mucinous tumors can be benign, borderline, malignant, and sometimes present with pseudo myxoma peritonei. All these tumors show a progressive relationship like CIN to cervical cancer which is usually not present with other types of ovarian tumors. In molecular behavior, Epithelial ovarian tumors show p53 and BRCA mutations while mucinous ovarian tumors show KRAS mutations.

The most common Ovarian malignancies are Epithelial and of the Serous type. Mucinous ovarian carcinoma (MOC), is less than five percent of all epithelial ovarian malignancies.¹ All early-stage epithelial ovarian malignancies are treated, with Removal of the mass and a total abdominal hysterectomy with bilateral salpingo-oophorectomy. In advanced malignancies debulking surgery/or tumor reduction, and adjuvant chemotherapy with a Taxane and a platinum agent is required.

Mucinous cystadenomas present as a large, multiloculated cystic mass with mucus-containing fluid.² They are common in women in their reproductive years but cases in adolescent and premenarchal girls and postmenopausal patients, have been reported.³ The average size at presentation is 18 cm. Mucinous tumors can become extremely large like

in our case and fill the entire abdominal cavity i.e. from the pelvis to the diaphragm. They can cause ureteral obstruction or abdominal compartment syndrome due to pressure.⁴ When dealing with ovarian tumors clinically if the mass is large it's usually mucinous. Primary mucinous tumors are larger and unilateral, while metastatic lesions are smaller and bilateral.

A relationship between tumor size and laterality was studied by Seidman et al. In their study they found that a unilateral tumor greater than 10 cm correctly predicted primary ovarian tumors in 82 % of cases. In patients having bilateral ovarian tumors and size less than 10 cm, metastatic disease was correctly predicted in 95 % of cases. Other studies have later confirmed this relationship.⁵

Mucinous ovarian cancers are diagnosed at Stage I in 83% of the cases and only 17% are Stage II or above. Meanwhile Serous ovarian carcinomas 4 % of patients are diagnosed at Stage I and 96 % are stage II or above at the time of diagnosis. Thereby the prognosis is better with primary mucinous tumors.

Many studies have confirmed that a mucinous tumor limited to the ovary will not have occult lymph node metastasis. Therefore, it is not considered evidence-based to perform routine pelvic and/or para-aortic lymphadenectomy as part of the staging procedure.⁶ The most useful tumor marker for MOC is the Carcinoembryonic antigen (CEA). It is used

preoperatively and postoperatively to follow a patient with MOC.

While the most useful tumor marker in Serous ovarian is elevated CA125.⁷

The gold standard for the treatment of MOC includes a staging laparotomy, peritoneal wash, total hysterectomy, bilateral salpingo-oophorectomy, and infra colic omentectomy.

As the MOC's are usually diagnosed at an early stage and are unilateral, young patients can undergo fertility-sparing surgery with no adverse effect on their prognosis.

Staging in patients who have completed their families includes a midline incision laparotomy, a thorough evaluation of the peritoneal cavity with a sampling of any suspicious areas, pelvic washings, total abdominal hysterectomy with bilateral salpingo-oophorectomy, and infracolic omentectomy.⁸ A sampling of the pelvic and para-aortic lymph nodes is not done routinely as part of the staging procedure as explained earlier.

Conclusion

Primary Mucinous ovarian tumors are different in many aspects from the other Epithelial ovarian tumors. They differ in their etiology, early presentation, tumor markers, clinical progression of the disease, and survival rates. A small number of cases of MOC need to be studied further to achieve improved patient care.

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