

MUCINOUS CYSTADENOCARCINOMA OVARY PRESENTED AS GIANT PELVIC-ABDOMINAL MASS

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ABSTRACT

A 55 year old Indian postmenopausal women referred to our hospital for large pelvic-abdominal mass, pain in abdomen and intermittent bleeding per vaginum. On histopathological examination, it revealed well differentiated mucinous cystadenocarcinoma of right ovary. Extra-large benign and malignant masses of ovary are uncommon, and give diagnostic challenges. Also primary and secondary ovarian malignancies should be carefully evaluated.

Key Words: Ovarian Tumors; Abdominal Masses; Epithelial Ovarian Carcinoma; Mucinous Cystadenocarcinoma

Introduction

Mucinous tumors of the ovary are defined by the presence of the epithelial containing intra-cytoplasmic mucin. They account for 15% of all the ovarian tumors. They are classified as benign, borderline and malignant type. Usually they remain asymptomatic, or with unexplained increase in abdominal girth, and patient are underreported for health care.

Case Report

A 55 year old woman, postmenopausal, came with history of pain in abdomen since 8 months, increased abdominal girth since 4 months, with intermittent per vaginal bleeding. She was menopausal since 4 years. There was no history of any drug, hormone or contraceptive use. Past and family history was not contributory. Per abdominal examination showed large pelvic-abdominal mass from pelvis to xiphisternum. Clinically, it was suspected to be ovarian cystic mass. The other systemic examinations revealed no significant pathology.

Patient was investigated for routine, haematological, biochemical and radiological findings. Sonographical studies of abdomen and pelvis, showed large mass measuring 25.8 x 24 x 17 cm, with predominantly cystic multi-loculated lesion, with dense internal edges, and multiple thin septae within it. There was no evidence of mural nodules. Both kidneys showed changes of Grade II hydronephrosis. Other organs were normal. No obvious lymphadenopathy was noted. Final impression revealed

features suggestive of multi-loculated large cystic ovarian mass suggestive of malignant neoplasm.

Radiological Studies

Anterior-Posterior and lateral view of chest revealed normal study. Contrast Enhanced Computed Tomography study was suggestive of malignant neoplastic ovarian mass. Serum CA-125 levels were raised (97.37 U/ml). Other haematological investigations showed microcytic hypochromic anaemia. Patient underwent pan-hysterectomy. Minimal ascites was noted. There was no evidence of any peritoneal nodular lesions. The specimen was sent for histopathological examination.

Gross Examination

We received pan-hysterectomy specimen. Uterus, cervix, left ovary, both fallopian tubes were unremarkable. Right ovary showed large single mass with smooth external surface (Figure 1). It measured 26 x 23 x 15 cm and weighed 9.5 kg. Cut section showed multi-loculated cystic areas filled with thick mucinous material. Solid areas with foci of haemorrhages and necrosis were also noted (Figure 2).

Microscopic Examination

Multiple sections from cystic and solid areas of right ovary showed tumor composed of cyst and glands. The glands were lined by neoplastic epithelium showing branching, complex papillary and tubule formation (Figure 3).

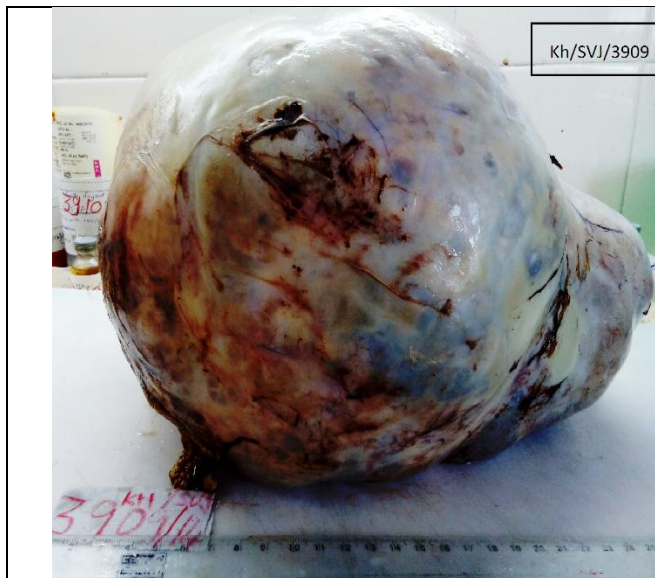


Figure-1: Gross specimen showing huge right ovarian mass



Figure-2: Cut section of ovarian mass showing solid and cystic areas with foci haemorrhage and necrosis

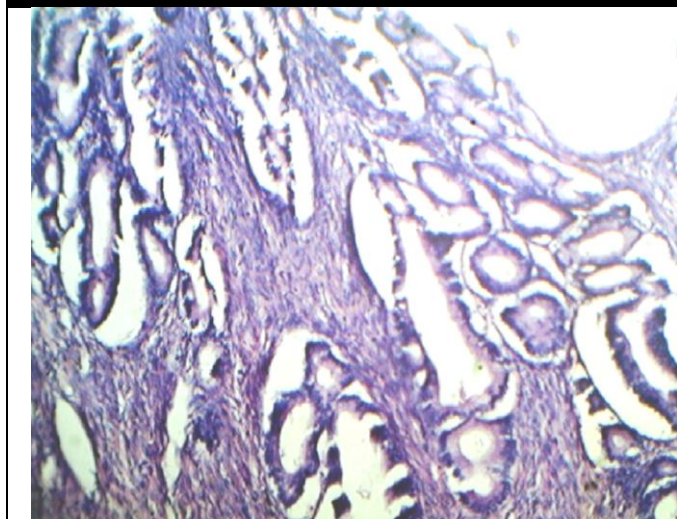


Figure-3: Photomicrograph showing mucinous cystadenocarcinoma of ovary with stromal invasion (H & E 40X)

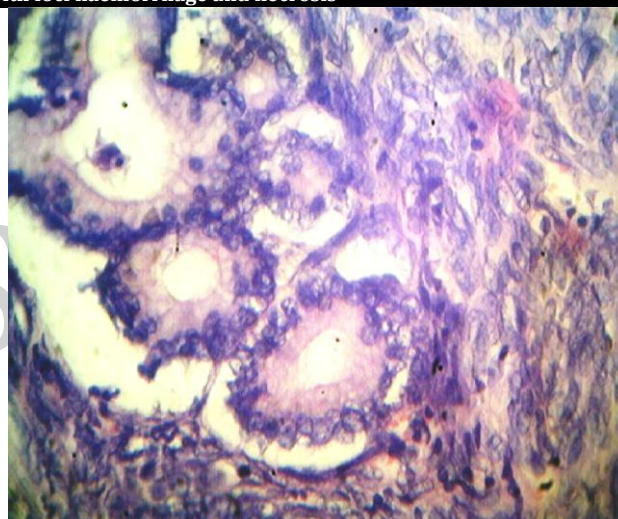


Figure-4: Photomicrograph showing foci of invasion with stromal tissue destruction (H & E 100X)

In areas showing nuclear crowding, stratification, intraepithelial carcinoma and stromal destruction with areas of glandular stromal invasion were there (Figure 4). Intraluminal necrotic debris was seen. Focal areas of haemorrhages and necrosis were noted. There was no evidence of ovarian capsular invasion. Final histopathological diagnosis was right ovarian well differentiated mucinous cystadenocarcinoma. Left ovary, both fallopian tubes, endomyometrium and cervix were unremarkable.

Discussion

Mucinous tumors of ovary are the second most common type of surface epithelial tumor of ovary and account for approximately 15% of all ovarian tumors.^[1] They are divided into benign, borderline and invasive type.

Approximately 80% of the mucinous tumors are benign, 10% are borderline and 10% are invasive carcinomas.^[2] The mucinous carcinomas of ovary are usually large; having mean diameter of 16 to 19 cm.^[3]

Giant mucinous cystadenocarcinoma are very rare.^[4] The incidence of primary mucinous adenocarcinoma is low. Primary mucinous cystadenocarcinoma are characterised by a large, unilateral ovarian mass with a smooth external surface. In our case, the mass was large and there was smooth external surface. There were no nodules on the surface. The young age, expansile growth pattern, complex papillary pattern, necrotic luminal debris and histologic areas of destructive stromal invasion with malignant cellular, are the features favouring ovarian carcinoma. Keeping in the mind the increase in number of cases reported as metastatic

mucinous adenocarcinoma, it should be carefully differentiated from primary ovarian carcinoma. Usually bilateral masses, small size, capsular implant, surface involvement, nodularity, and hilar involvement favour metastasis.^[5,6] Our case shows all features of primary ovarian carcinoma. The primary mucinous carcinomas of ovary are distinct from other ovarian carcinoma types. The secondary ovarian tumor from metastasis, which usually originates from colo-rectum, appendix, cervix, pancreas and biliary system, pose a particular challenge for correct diagnosis. Estimation of cancer antigens (CA-125) can help in identifying epithelial tumours of ovary. In our case, CA-125 was raised. (97.37 U/ml).

The mucinous tumors of the ovary are usually early stage at diagnosis (83%), in comparison to serous tumors (4%),^[7] and have a higher overall survival.^[8] However in advanced stages, the outcome of mucinous tumor is inferior.

Conclusion

Clinical and radiological findings of ovarian cancer are a major concern about diagnostic challenges.

Histopathology, playing important role in such cases, will be helpful for better management of patient.

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