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CASE REPORT

GIANT MIXED EPITHELIAL OVARIAN TUMOUR: A CASE REPORT

Sunanda N[1], Sudha R[2], Akhila M. V[3]

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ABSTRACT: Ovarian cysts represent intra-abdominal neoplasms which attain a size large enough to fill the abdominal cavity. Cystic abdominal tumours are extremely common and nowadays are diagnosed more frequently due to availability of better imaging modalities. Presentations of huge cysts have become rare as most of them are diagnosed and treated early. Still we get reports of patients with huge benign abdominal cysts and majority of them are serous cystadenoma of ovary with less than 4% of all ovarian tumours being mixed epithelial type. Sometimes, it becomes very difficult to identify the source of these cysts and are misdiagnosed as mesenteric cyst. Absolute diagnosis is only possible at laparotomy. We present a case of giant mixed seromucinous cystadenoma of the ovary weighing 10Kg in a 65-year-old postmenopausal lady who underwent laparotomy with complete lack of intra-operative and post-operative complications attending the removal of a cyst of this size.

KEYWORDS: Ovarian tumour, Mixed epithelial tumour.

INTRODUCTION: Surface epithelial stromal tumours are the most common neoplasms of the ovary and they encompass five distinct subtypes including serous, mucinous, endometroid, transitional and the clear cell types, which mostly occur in the pure form.[1] Benign serous tumours are common, accounting for about 25% of all benign ovarian neoplasms and 58% of all ovarian serous tumours. In some cases however, two or more subtypes reside within the same tumour. These are known as mixed surface epithelial stromal tumours.

The WHO has classified mixed tumours as those in which the minor component is easily recognizable and they account for atleast 10% of the entire tumours on microscopic examination.[1] Mixed epithelial tumours of the ovary comprises less than 4% of all the ovarian epithelial stromal neoplasms; malignant, mixed epithelial tumours are still rarer.[1] Mixed epithelial tumours always pose a diagnostic dilemma. The evaluation of multiple sections of an ovarian neoplasm is strongly recommended to rule out a mixed carcinoma, as the behaviour of these tumours depends on the dominant cell type present. We hereby report a case of giant sero-mucinous cystadenoma ovary in a postmenopausal woman occupying almost the entire abdominal cavity.

CASE REPORT: A 65-year-old woman presented to our out-patient department with complaints of abdominal distension and vague abdominal pain for 4 years for which she was evaluated at a private Centre and diagnosed to have a mass in the abdomen after an ultrasound. She was lost to follow up for 6 months and with no proper further treatment, mass gradually increased in size to occupy the entire abdomen. There was no history of colicky pain, fainting attacks, vomiting or other gastrointestinal disturbances.

There was no family history of malignancies. Abdominal examination showed uniform distension with the mass corresponding to a 36 week gravid uterine size measuring about 30×40×40

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cm with varying consistency (cystic and hard areas) with no evidence of free fluid. Vaginal examination showed fullness in all fornices.

Uterus was not felt separately. Ultrasound examination revealed a large complex cystic lesion measuring approximately 40×30cm arising from the pelvis involving the entire abdomen. The lesion showed septations with internal vascularity and coarse internal echoes. The liver, spleen and kidneys were sonographically normal. The uterus was overshadowed by the cyst and could not be visualized. Magnetic resonance imaging confirmed the diagnosis of right sided ovarian cyst with multiple thin septations and loculations suggestive of serous cyst adenoma/carcinoma (Fig. 1).CA-125 was 78.1 ng/ml.

Staging laparotomy was done. Abdomen was opened by a vertical midline incision extending above the level of the umbilicus. There was no free fluid in the abdomen. A tense smooth surfaced cystic mass measuring 40×37×30 cm extending up to the undersurface of the diaphragm was delivered out (Fig. 2, 3). The mass originated from the right ovary. The right ovary was included in the mass.

The right fallopian tube was thinned out, adherent, and stretched over the surface of the cyst. Left tube and ovary were healthy and the uterus was atrophic. The cyst was excised intact. Total abdominal hysterectomy with bilateral salpingectomy with left oophorectomy was done. The postoperative period was uneventful and the patient was discharged on the tenth day after operation. Histopathology revealed a mixed serous and mucinous cyst adenoma of right ovary (Fig. 4). The sections from the uterus, tubes and the ovaries were normal.

MRI IMAGE SHOWING RIGHT OVARIAN TUMOUR WITH MULTIPLE SEPTATIONS

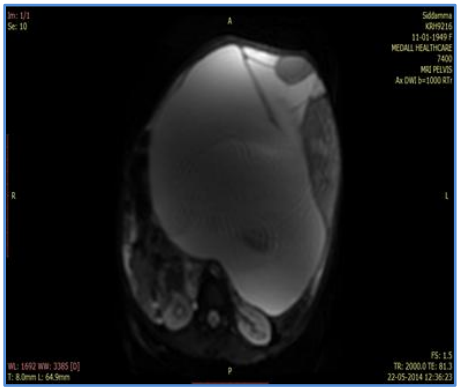

Figure 1

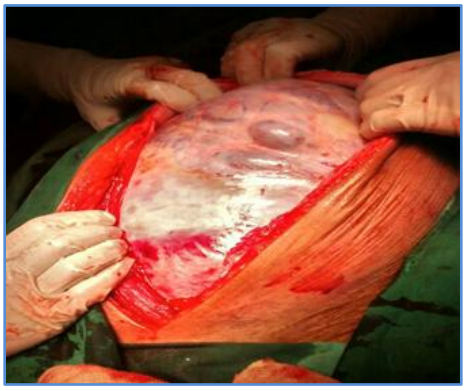

Figure 2: PER OPERATIVE PICTURE

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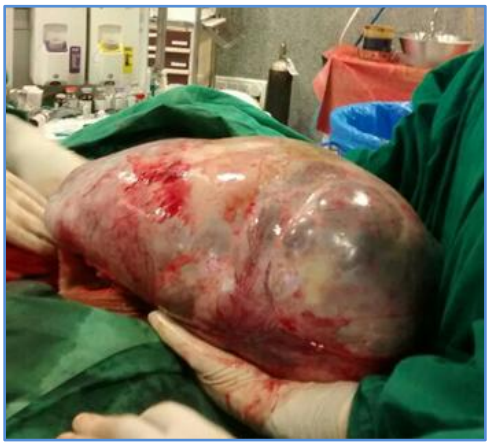

Figure 3: GROSS SPECIMEN

HISTOPATHOLOGY SPECIMEN SHOWING SEROUS AND MUCINOUS COMPONENTS

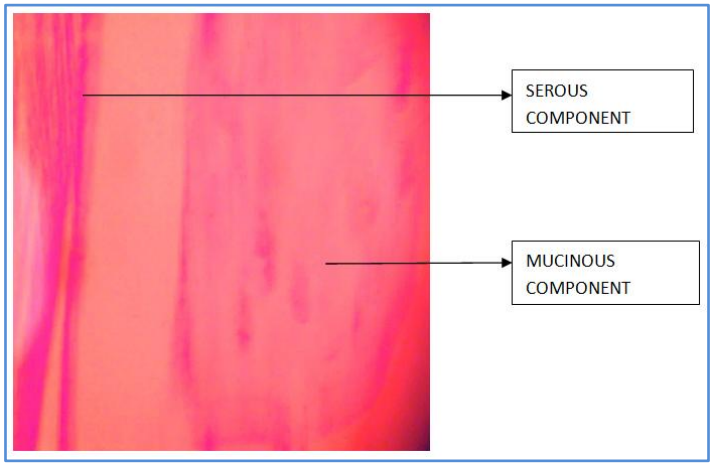

Figure 4

DISCUSSION: Ovarian epithelial tumours represent 60% of all ovarian neoplasms and 90% of malignant ovarian neoplasms.[2] Subtypes of epithelial tumours include serous, mucinous, endometrioid, clear cell, Brenner tumours and mixed types. Epithelial ovarian tumours can be classified as benign (60% of cases), malignant (35%), or borderline (low-malignant-potential) (5%) depending on their histologic characteristics and clinical behavior.[3]

Mixed epithelial ovarian tumours, by definition, are composed of admixtures of two or more of the five major cell types: serous, mucinous, endometrioid, clear cell, and Brenner/transitional. According to the World Health Organization, the minor component must account for at least 10% of the tumour in a microscopic examination in order to be classified as a mixed tumour.[4] The origin of mixed epithelial ovarian tumours has been controversial. Kurman et al.[5] and Malpica et al.[6] have stated that ovarian cancers are of de novo origin.

They divided ovarian cancers into type I and type II, based on their clinical behaviour. Type I includes low grade endometrioid, clear cell, mucinous, and transitional carcinomas, which behave in an indolent manner and are confined to the ovary at the time of presentation. Type II tumours are highly aggressive, evolve rapidly, and present in advanced stages. They include high-grade serous carcinomas, undifferentiated carcinomas, and malignant mesodermal mixed tumours (carcinosarcoma).

The frequent combinations encountered in mixed epithelial tumours include serous/endometrioid and serous/transitional cell carcinoma types.[7] The least differentiated component determines the tumour grade and the dominant cell type generally dictates behaviour[7]. The ages of patients with mixed tumours range between 17 and 60 years (mean, 35 years). Ninety-one percent of the cases occur among pre-menopausal women. Tumour size ranges from 2 to 16 cm (average, 8.5 cm).

Most of the benign ovarian tumours are asymptomatic. However, symptomatic ones tend to present with abdominal swelling and sometimes abdominal discomfort due to pressure effect as in this case. Presence of acute abdominal pain should raise the suspicion of torsion, rupture, infection or haemorrhage into the tumour. Weight loss may suggest malignancy but some benign tumours like this case may have the symptoms. Clinical examination is usually tailored towards differentiating benign from malignant lesion. Apart from general examination the size, texture, consistency, tenderness and mobility of mass are assessed together with the presence/absence of ascites.

Investigations like ultrasonography, chest x-ray, intravenous urography, barium studies, serum tumour markers and computerized tomography where indicated can be performed to exclude malignancy. The size of the tumour and history of weight loss warranted some of the investigations in the case presented. Clinical diagnosis may not be possible without a laparotomy and even then histological examination is essential for a confident conclusion. Pre-operative preparation should take into consideration the possibility of encountering a malignant lesion.

Benign unilateral ovarian tumour can be managed by unilateral oophorectomy. In addition, the contra-lateral ovary should be examined and where it looks suspicious, a frozen section will assist in deciding whether to remove it or not. However the limitation of the frozen section (inability to assess the entire mass) should be borne in mind. This case has demonstrated that not all giant ovarian tumours are malignant. Still every effort should be made to exclude malignancy in such tumours before offering conservative surgery. Benign cysts have an excellent prognosis; prognosis of malignant tumours varies with the type of tumour involved and time of detection.

CONCLUSION: Though most giant ovarian surface epithelial tumours are of the pure mucinous or serous type, this case suggests that mixed epithelial tumours should also be ruled out as they always pose a diagnostic dilemma requiring multiple sections of an ovarian tumour to rule out a possibility of mixed carcinoma associated with it.

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AUTHORS:

1. Sunanda N.
2. Sudha R.
3. Akhila M. V.

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Obstetrics & Gynaecology, Mysore Medical College and Research Institute.
2. Associate Professor, Department of Obstetrics & Gynaecology, Mysore Medical College and Research Institute.
3. Post Graduate, Department of Obstetrics & Gynaecology, Mysore Medical College and Research Institute.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Sunanda N,
No. 1312, 5th Cross,
Paduvana Road,
Kuvempunagar,
Mysore-570023.
Email: sunanda_n@rediffmail.com

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