

# A Massive Ovarian Mucinous Cystadenoma: A Rare Case Report

Ruma Sen Gupta<sup>1</sup>, Suha Jesmen<sup>2</sup>, Aysha Noor<sup>3</sup>, Shahana Shermin<sup>4</sup>

### Abstract

*Ovarian mucinous cystadenoma is a benign tumour that arises from the surface epithelium of the ovary. It tends to be huge in size if not detected early. We describe a 32 year old woman (para 1+0) presented with marked abdominal distension, discomfort and vague pain in the abdomen with dyspepsia, anorexia, nausea, vomiting and irregular menstruation for last three months with the suspicion of pregnancy. On examination no findings were in favour of pregnancy, rather an ill defined abdominal mass about 30 weeks pregnancy size was found. Transabdominal USG revealed a big multiloculated ovarian cyst of about 25x20 cm. On laparotomy a huge cystic mass was noticed arising from left ovary. The cyst wall was smooth, intact and without any external projection though adherent with the left fallopian tube and left salpingo-oophorectomy was done. Histopathological examination revealed an ovarian cyst compatible with mucinous cystadenoma. Such giant ovarian tumours have become rare in current practice. This case report emphasizes the significance of thorough evaluation of all women presented with non specific complaints like vague abdominal pain or simple dyspepsia. Although the condition is rare, it is potentially dangerous in the massive form if not timely diagnosed and managed properly. With the increasing awareness of such conditions, more and more cases could be detected and reported early.*

**Keywords:** Massive ovarian tumour; mucinous cystadenoma.

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### Introduction

Ovarian tumour is not a single entity, but a complex wide spectrum of neoplasms involving a variety of histological tissues. The most common are the epithelial tumours forming 80% of all tumours. Mucinous ovarian tumours arise from the surface epithelium of the ovary and represents about 8-10% of the epithelial tumours.<sup>1-4</sup> Of all the mucinous ovarian tumours the benign mucinous cystadenoma accounts for 80% and borderline mucinous cystadenoma make 10% and malignant mucinous cystadenoma account for the remaining 10%.<sup>1</sup> Benign ovarian mucinous tumours are rare

at the extremes of age, before puberty and after menopause, they are common between the 3rd and 5th decades.<sup>3-6</sup>

Benign mucinous cystadenoma is a multilocular cyst with smooth outer and inner surface.<sup>1</sup> Grossly these tumours appear as rounded, ovoid or irregularly lobulated growths with a smooth outer surface of whitish or bluish white hue. The content of the cyst is generally a clear viscid fluid. This fluid is usually rather thin and flows freely at body temperature, but becomes gelatinous as it cools. Microscopically, the distinctive feature of

1. Senior Medical Officer, Gynae & Obs Dept., BIRDEM Hospital, Dhaka, Bangladesh.
2. Asstt. Professor, Gynae & Obs Dept., Anwer Khan Modern Medical College & Hospital, Dhaka, Bangladesh.
3. Senior Medical Officer, Gynae & Obs Dept., BIRDEM Hospital, Dhaka, Bangladesh.
4. Senior Medical Officer, Gynae & Obs Dept., BIRDEM Hospital, Dhaka, Bangladesh.

**Correspondence:** Dr. Ruma Sen Gupta. e-mail: ruma.sengupta.bd@gmail.com

mucinous cysts is the characteristic single layer of tall, pale staining secretory epithelium, with basal nuclei.<sup>3</sup> It is unusual for papillary processes to be present, but when they are, they are suggestive of malignancy. Malignant change in mucinous cystadenomas is thought to occur in 5-10% of cases. Unlike serous tumours, the mucinous variety may have benign, borderline and malignant elements in the same tumour, and extensive sampling is therefore important when examining the tumour. Mucinous cystadenocarcinoma tend to be predominantly solid.<sup>7</sup> Mucinous cystadenomas may reach enormous size filling the entire abdominal cavity. Many of the largest human tumours belong to this group.<sup>3</sup>

A mucinous cystadenoma can cause discomfort, particularly if it compresses adjacent organs, such as the bladder, rectum and ureters. Other complications include torsion, suppuration, haemorrhage and rupture. As it contains mucinous fluid its rupture leads to mucinous deposits on the peritoneum (pseudomyxoma peritonii). Malignant transformation is not common; it has been reported in just 5-10% of cases.<sup>8,9</sup>

We report a case of giant ovarian mucinous cystadenoma in a middle aged woman who presented with an increase in abdominal girth, which was associated with some vague discomforts. She did not search for medical help for several months, which allegedly was self-interpreted as pregnancy.

## Case Report

A 32 year old married woman P 1 L 1 SVD, presented with abdominal distension, discomfort and vague pain in the abdomen. With these complaints she went to a general physician and was treated conservatively by analgesics and anti-ulcerant drugs for several times, but her condition was not improved. Gradually she noticed heaviness in the abdomen from last 3 months with dyspepsia, anorexia, nausea and her menstrual cycle became irregular. So, with

suspicion of pregnancy she finally went to a gynaecologist in a private chamber.

General examination revealed all normal vital signs with tachypnoea, RR 24/minute. On her abdominal examination an ill defined abdominal mass about 30 weeks pregnancy size was found. The mass was tense cystic on palpation without any tenderness. Pelvic examination revealed normal sized non pregnant firm uterus and fullness of the cul - de - sac and both adnexae.

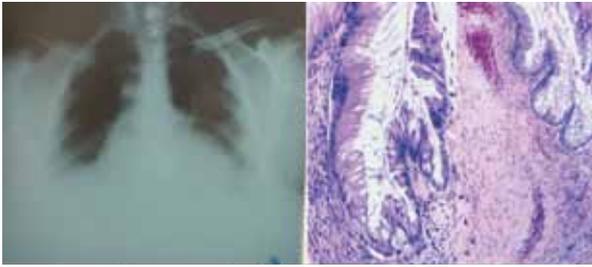
Trans abdominal USG revealed a big multiloculated cyst of about 25x20 cm without any solid component or surface papillary projection. Laboratory investigations included complete blood picture, serum biochemistry, cervical cytology and cancer antigen (CA - 125). A plain chest x-ray on erect position was also done.

Patient and party was counselled about her disease and signed informed written consent was taken. Under G/A a midline sub umbilical incision was made. A huge cystic mass was noticed arising from left ovary which was flimsy adherent with the surrounding structures. The outer surface of the mass was smooth and intact all around without external growth. During manipulation cyst was ruptured and huge amount of cystic content (glairy substances) came out, which was sucked out. The cyst size was reduced and left salpingo-oophorectomy was done, as the whole ovary was involved in the mass and the tube was dilated and adherent to the mass.

The right adnexa and uterus were healthy. No ascites or enlarged lymph node was discovered. Finally, the abdomen was washed with normal saline and povidone iodine.

Histopathology revealed a cyst lined by a single layer of non-ciliated columnar epithelium without stromal invasion, the picture of which is compatible with mucinous cystadenoma.

Postoperative recovery was uneventful and the patient was discharged on the 5th postoperative day to be followed after 7th day of the discharge and she was advised to follow up at every three months then yearly.



**Fig 1:** Plain chest x-ray shows no pleural effusion or metastasis. Upward displacement of diaphragm affecting air entry into the lower lobes of lung (explains patient's tachypnoea)

**Fig 2:** Microscopic picture of ovarian tumour shows the lining non-ciliated, mucin-secreting, columnar epithelium with goblet cells (Mucinous cystadenoma)



**Fig 3 & 4:** Showing glairy substances coming out of the massive ovarian cystadenoma.

## Discussion

Ovarian cysts are considered large if they have diameters between 5 and 15 cm and those with diameters over this upper limit are called giant cysts.<sup>10</sup> Giant ovarian tumours have become rare in current practice. As most cases are discovered early during routine check-up, detection of ovarian tumour causes considerable worry for women because of fear of malignancy, but fortunately the majority of ovarian cysts are benign.<sup>9</sup> Giant cysts require resection because of compressive symptoms or risk of malignancy and their management invariably requires laparotomy to prevent perforation and spillage of the cyst fluid into the cavity.<sup>10</sup>

Mucinous cystadenoma is reported to occur in middle aged women as it was in our case. It is rare among adolescents or in association of

pregnancy.<sup>11,12</sup> On gross appearance, mucinous tumours are characterized by cysts of variable sizes without surface invasion. Only 10% of primary mucinous cystadenoma is bilateral.<sup>13</sup> In our case, the tumour was unilateral, affecting the left ovary. The cyst was filled with sticky gelatinous fluid.

Histopathologically, mucinous cystadenoma is lined by tall columnar non-ciliated epithelial cells with apical mucin and basal nuclei. They are classified to the mucin producing epithelial cells into three types.<sup>6</sup> The first two, which are always indistinguishable include endocervical and intestinal epithelium. The third type is the mullerian, which is typically associated with endometriotic cyst.<sup>9</sup> Our case had epithelium of intestinal like type as many goblet cells were noticed.

Management of ovarian cyst depends on the patient's age, the size of the cyst and its histopathological nature. Conservative surgery as ovarian cystectomy and salpingoophorectomy is adequate for benign lesion.<sup>13</sup> In our patient, left salpingoophorectomy was performed as there was no ovarian tissue left and the tube was unhealthy.

After surgery, the patient should be followed up carefully as some tumour recurs.<sup>11</sup> Although the tumour was removed completely with the affected ovary, our patient was given appointment to be reviewed every three months for a year.

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