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# A 24 kgs giant mucinous cystadenoma in a post-menopausal woman: A rare case report

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**Abstract**
Mucinous cystadenomas are among the most common benign ovarian neoplasms. Abdominal cystic tumours are highly prevalent. Due to the availability of superior imaging techniques, they are now diagnosed more commonly and considerably earlier. Over time, these adnexal masses can lead to fatal complications, such as ovarian torsion or haemorrhage. Incidental findings of these tumours are common as many of these patients are asymptomatic. 45-year-old female presented with abdominal distension for 1 year with polymenorrhagia. An exploratory laparotomy relieved a giant tumour weighing of 24.870 kgs drained 30 Litres of serous fluid. Histopathology revealed benign ovarian mucinous cystadenoma. A multidisciplinary approach in the preoperative, intraoperative and postoperative stages of management optimizes patient outcomes.

**Keywords:** Ovarian mucinous cystadenoma, giant tumor, post-menopausal age

## Introduction
The risk of being diagnosed with an ovarian tumour is about 1% to 1.5% [1], although the diagnosis of ovarian cysts is relatively common due to better accessibility and the routine use of newer imaging techniques. These cysts rarely attain gigantic proportions due to advances in radiological techniques, even in the age of modern medicine, rural women who do not have access to state-of-the-art medical care continue to report cases, which more clearly reflects the lack of medical care and plight of these women. Cystic lesions lined by mucin secreting epithelium, which resembles like the endocervical glands and the gastrointestinal epithelium constitutes mucinous ovarian tumours [3]. Such tumours may also have the potential to attain large dimensions. Benign mucinous cystadenomas make up to 15% of all ovarian neoplasms which is among the largest recorded tumours. About 80% of mucinous tumours remain benign, 10% represent borderline and 10% are malignant, of which 80% are metastatic, with the gastrointestinal tract being the primary site in 45% of cases other organs such as the pancreas and breast have additionally been implicated. They are typically observed among the 1/3 and 5th decade of life [4]. Management of ovarian tumours basically starts with an evaluation of the malignant capability of the tumour with the aid of using the risk malignancy index which relies upon at the menopausal status, ultrasonographic findings and ranges of ca 125 [5]. Surgical interventions are based on the patient's age, menopausal status, presence of any other medical or surgical illness, with open or laparoscopic approach

## Case Presentation
45-year-old post-menopausal female presented with complaints of abdominal distension for 1 year. Patient has a history of hypertension on treatment and also on treatment for hypothyroidism. She had no significant relevant family history. She was evaluated with CT abdomen & pelvis which showed large well defined multiloculated cystic lesion with multiple enhancing thick septa and eccentric mural nodule within and enlarging the entire abdominal cavity and evaluated with CA-125-121 U/ml, CEA- 36.89 mmol tumour markers. Surgical oncologist opinion obtained and planned for staging laparotomy along with expert opinion from pulmonologist, cardiologist, anesthetist. Total hysterectomy with bilateral salphingoopherectomy with pelvic node dissection, intra colic omentectomy with midline vertical incision extending from xiphisternum to suprapubic region made and abdomen was

opened in layer and revealed left ovarian mass measuring 40 X 40 cms weighing 24.870 kgs removed in toto with intact capsule followed by pelvic node sampling. After achieving hemostasis, abdomen closed in layer, drain was placed. Ovarian mass measuring 40 X30 X14 cm, external surface was smooth with congested blood vessels with no capsular breech. Cut surface- 30 litres of mucinous fluid exuded with multilocation with solid areas and focal papillary excrescences. Histopathology features were consistent with mucinous cystadenoma

**Fig 1:** Preoperative Abdominal Distension and extent of the tumor

**Fig 2:** Intraoperative ovarian tumor

**Fig 3:** Preoperative dimension of the ovarian tumor in toto


**Fig 4:** Ovarian cystic mass-40 x 30 x 14 cm, congested capsule with attached fallopian tube.


**Fig 5:** Cut surface showing Multiloculated with solid areas and focal papillary excrescences

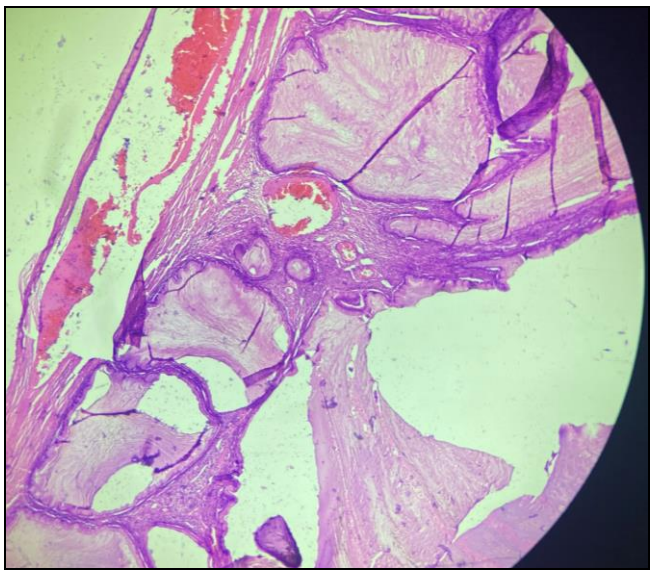

**Fig 6:** H&E stain section showing neoplasm composed of multiple cysts

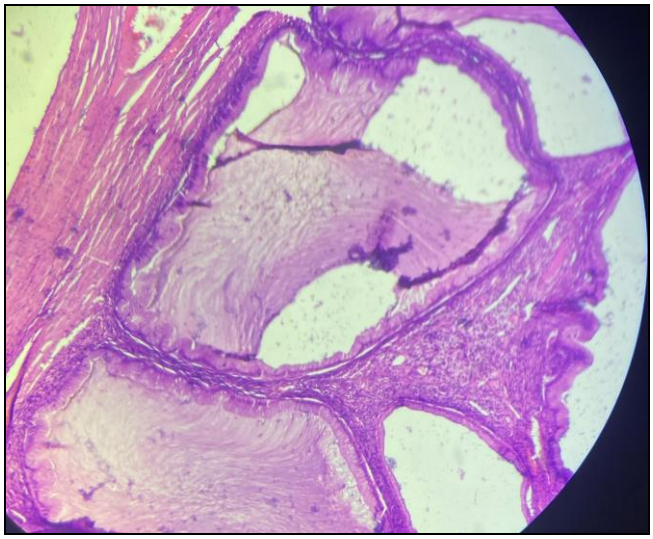

**Fig 7:** H&E stain section showing benign columnar non-ciliated epithelium of the cyst with abundant mucin

## Discussion

Mucinous cystadenomas have the potential to grow into immense mass and infrequently remain undiagnosed until they become giant ovarian cysts, they're incidentally found on routine physical examination and sonograms. They can arise from the surface epithelium, from the germ cells or from the stromal tissue of the sex cord. Epithelial cells account for 95% of gynecological malignancies [5]. Overall, secreting mucinous tumors account for 15% of all ovarian tumors. In contrast, serous tumors are the most common epithelial ovarian tumors, with malignant serous and borderline tumors accounting for approximately 60% of all ovarian carcinomas. Mucinous tumors comprise of 75% of benign ,10% of borderline and 15% of malignant lesions [2] Giant ovarian tumors generally pose risk due to their location and pressure effects on surrounding Size and laterality play important roles in determining the origin of the tumor, whether primary or metastatic. In contrast to metastatic tumors, primary tumors tend to be larger and unilateral [4]. The large size of the ovarian cyst strongly suggests a mucinous histology due to the mucus filling the cystic spaces. They can undergo a malignant transformation as well. Mucinous tumors are more common in the fifth or sixth decade of life, but usually prevalent in postmenopausal women remains underreported due to early detection.

CT and MRI can in addition assist in visualizing the specificity of ovarian cysts. Cancer antigen one hundred twenty-five (CA-125) is a vital tumor marker that enables differentiate among benign and malignant ovarian masses [1]. Management of ovarian masses depends on a mixture of factors, including age, clinical history, symptoms, size of the cyst, and menopausal state of the patient. The mucinous cyst rupture can result in mucinous deposits filling in the entire peritoneum because the complication generally referred to as pseudomyxoma peritonei [7].

Various cases of giant tumours have been reported in the past, Spohn reported a giant tumor of 148.6 kg ,while in central india case reported at 56.95 kg [4]. We hereby report the largest tumour to be the largest documented ovarian tumour in southern part of India to the best of our knowledge, but the occurrence of such tumours is quite rare, and thus their management practices require meticulous planning and expertise.

Tumor markers remain the cornerstone in the study of ovarian tumors in patients, CA 125 and CA 19.9 are quite sensitive to epithelial tumors. Elevated cancer antigen 19-9 (CA19-9) is predominantly observed in malignant tumors of the gastrointestinal tract, biliary tract or ovaries, especially in the mucinous form. The study should be elaborately discussed with the significance of the results with the help of earlier work and reports.

## Conclusion

Mucinous cystadenoma is a benign neoplastic tumour that can rise to be quite substantial. They are uncommon in postmenopausal women, and when they do occur, they can be difficult to differentiate from a malignant neoplasm. Moreover, The patient's multiple co-morbidities, advanced age, and tumour size can make surgical treatment risky and potentially fatal to a wide range of complications This case study focuses on the significance of early detection, preoperative assessment, and subsequent surgical management using a multidisciplinary approach to reduce preoperative and postoperative complications while also improving patients' quality of life

## Acknowledgments

I declare of NO conflict of interest related to the work.

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