

Abdominal Cystic Mass for Evaluation

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A 24-year-old married woman presented with her family to the outpatient clinic with abdominal pain, loss of weight and appetite for a few months. On clinical examination, the abdomen appeared soft, with a midline mass eliciting fluid thrill and was palpable corresponding to 32 weeks of gestation. Speculum examination revealed a retroverted uterus, healthy cervix and posterior fornix of the vagina with minimal mucous discharge. On examination of the anterior fornix of the vagina a cystic mass was seen compressing the urinary bladder and the structures below.

On Ultrasound of the abdomen, a large cystic lesion in the midline with multiple internal echoes, measuring 20.1 x 11.5 x 13.1 cm was seen in the abdomino-pelvic region. The lesion seemed to arise from the left ovary as the left ovary could not be visualized separately. On MRI, a large abdomino-pelvic cystic mass seemed to arise from the left ovary with multiple thin septations, measuring 23.0 x 9.0 x 18 cm noted in the midline, displacing and compressing the adjacent structures. The classical “Stained glass appearance” of the large cystic lesion was non satisfactorily visualised on STIR images.

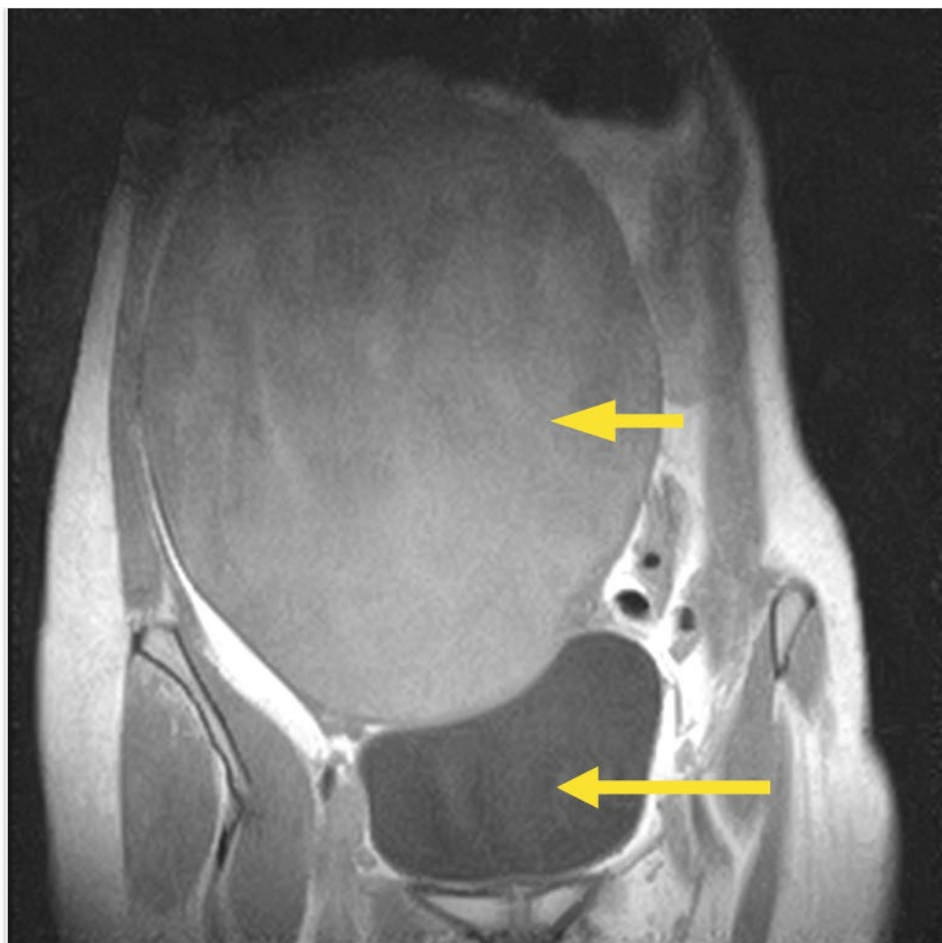


Figure 1: MRI image of the cystic lesion- T1 cor image.

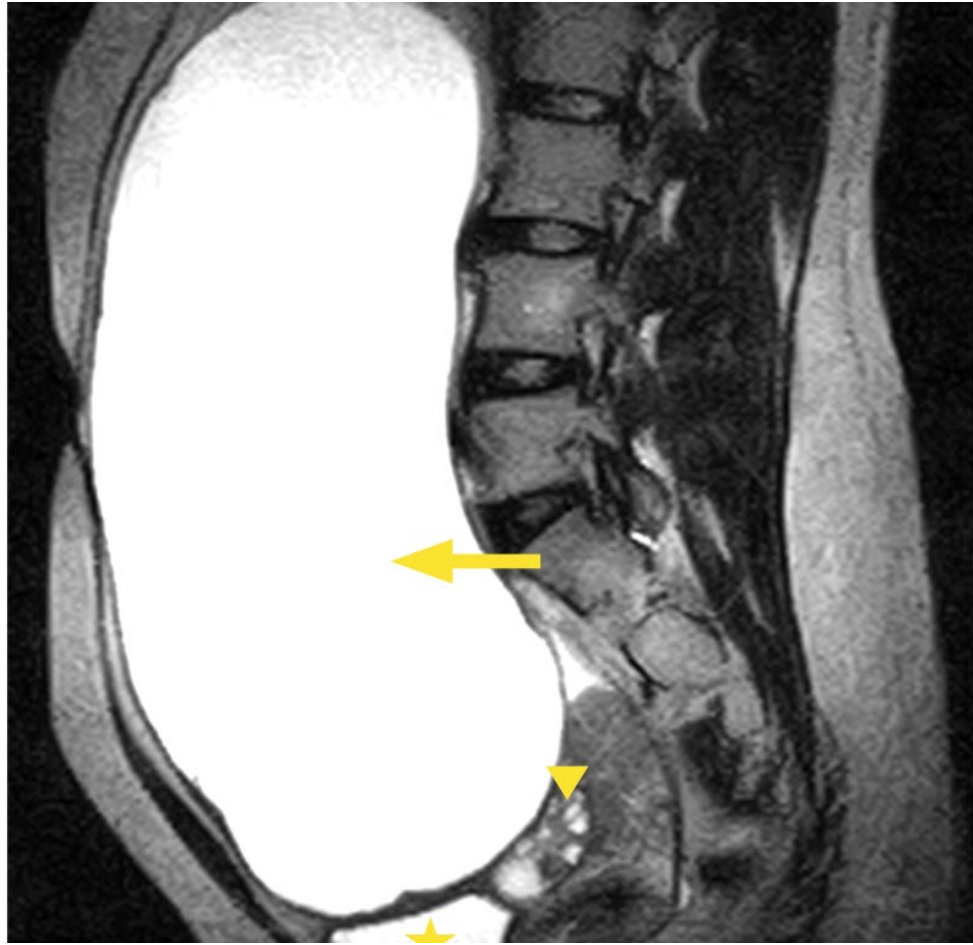


Figure 2: MRI image of the cystic lesion- T2 sag image.

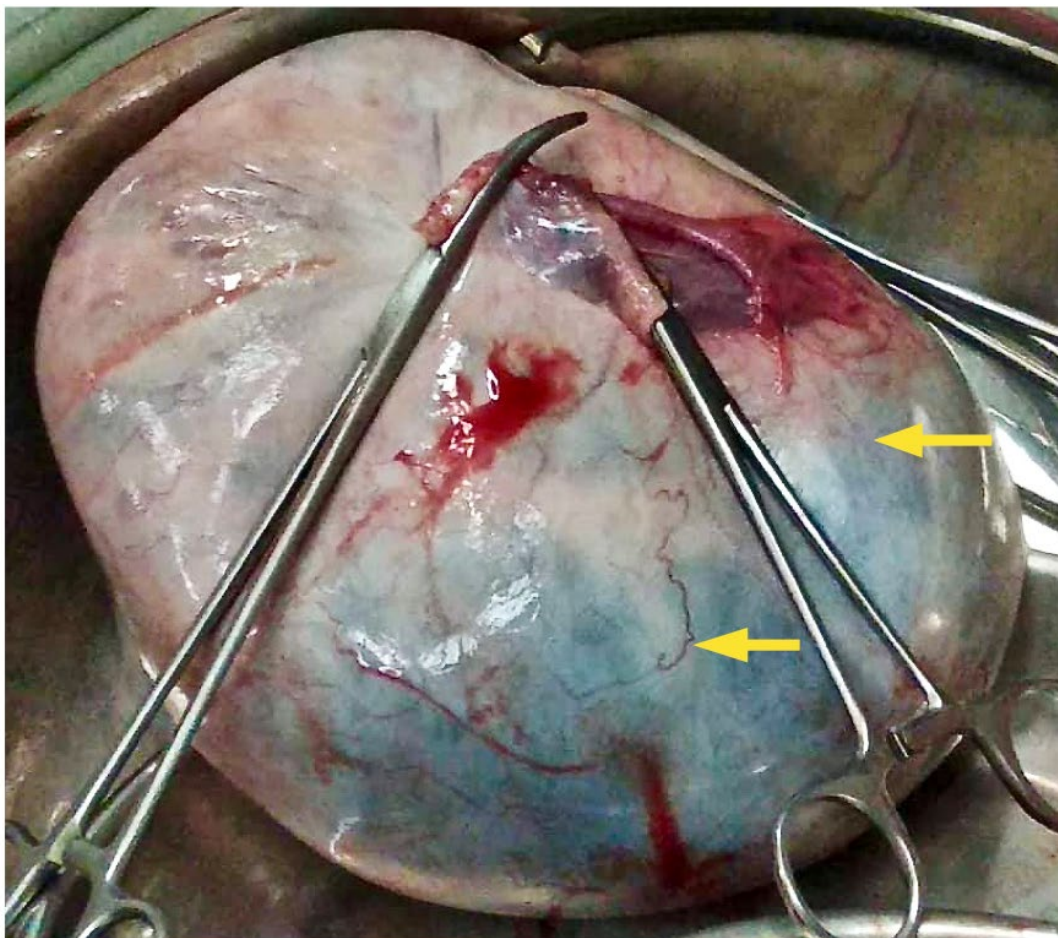


Figure 3: Gross specimen image of the cystic lesion.

Questions:

1. What is the likely diagnosis?
2. What are the differentials?
3. What is stained glass appearance?

Answers:

1. Owing to the history and the specific findings of the cyst which showed septations and considering a large cystic lesion , mucinous type of cyst adenoma is thought of the near diagnosis.

2. Differentials like epithelial tumours of ovary are considered , in which serous and mucinous cystadenomas are the most common tumours. The others are endometrioid, clear cell, and brenner tumours.
3. A mixed signal intensity of the lesion on T1 and T2 images of MRI appears as a stained glass appearance.

Discussion:

Mucinous cystadenomas are benign epithelial mucin containing tumours, often larger than serous cyst adenomas and present in the reproductive age group after twenty years. Epithelial mucinous tumors have the following common characteristics: they appear multilocular both macroscopically and in images, and they are large, often exceeding 10 cm(1). Depending on the histological degree of malignancy, epithelial mucinous tumors may be benign cystadenomas(85%), borderline cystadenomas (10%), or mucinous cystadenomas (5%)(2).

Mucinous cystadenomas have thin regular walls and several septations. They lack solid components and usually never enhance post contrast. The cystic loculi may have variable signal intensity on both T1-weighted and T2-weighted images, namely “stained glass appearance”, based on different mucin concentrations. (3) Differentiating mucinous from serous, the latter follows the pattern of a simple cyst or of a multiseptate mass, whereas the former is typically a large multilocular lesion with locules of various fluid contents(4).

In our case, the patient presented with abdominal symptoms. On Ultrasound, a large cystic lesion measuring 20.1 x 11.5 x 13.1 cm seen with thin internal septations and internal echoes, seen probably arising from the left ovary/adnexa, extending up to the epigastric region. On MRI, the left ovary was not seen separately. The Stained glass appearance was partially appreciated. A cystic neoplasm of the left ovary was to be considered. Since conservative surgery as ovarian cystectomy and salpingo-oophorectomy is adequate for benign lesions(5) she underwent left salphingo-oophorectomy done laparoscopically.

Intra op findings showed a large cyst found replacing the left ovary. On microscopic examination ovarian stroma with cystic spaces lined by an attenuated single layer of tall columnar non- ciliated epithelium, with apical mucin and basal nuclei(mucinous lining) was seen. On gross examination the cystic mass(23.0 x 9.0 x 18.0 cm) which weighed 4.5 kg containing 4.0 litres of hemorrhagic fluid were seen within. The walls of the cyst showed an inner smooth surface with multilocation.

Conclusion:

Mucinous cystadenomas of the ovary are benign epithelial tumours more common at the reproductive age group and are often large cystic lesions with multi-loculations, containing mucin which shows the classical “stained glass appearance”.

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