

# GIANT LEFT TUMOUR OF THE OVARY. MUCINOUS CYSTADENOMA AND BRENNER TUMOUR – CASE PRESENTATION

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**Keywords:** Mucinous cystadenoma – Brenner tumor

**Abstract:** There is an up to 30% association between Brenner tumours and serous and mucinous cystadenomas.(1) The preoperative differentiation between benign and malignant tumours of the ovary is often difficult, especially when the tumour has both solid and cystic components.(2) We present the case of a 71-year-old woman with mucinous cystadenoma and Brenner tumour, in which ultrasound and CT examinations raised the problem of differentiating between a benign or malignant tumour. The preoperative CA 125 test was within normal range. Intraoperatively, a cystic tumoral mass was evidenced on the left ovary. The diagnosis was established by extemporaneous and histopathological examination.

## INTRODUCTION

Brenner tumour is an epithelial tumour of the ovary, usually asymptomatic and discovered accidentally, in most cases benign.(1)

The association between Brenner tumours and serous and mucinous cystadenomas is up to 30%.

A benign serous cystadenoma presents as a cystic mass containing clear liquid and septa inside.(3)

From the ultrasound imaging point of view there is no clear delimitation between cystadenoma and cystic adenocarcinoma.(3)

The probability of malignancy is supported by the following conditions:

- presence of thick septa;
- existence of multiple papillary growths;
- predominance of solid masses within the tumour;
- ascites.(3,4)

Imaging techniques do not provide a reliable diagnosis because of the unspecific aspect of the mass.(1)

The differentiation between benign and malignant, especially if the tumour has both solid and cystic components, is difficult to make before the operation.(2)

## MATERIALS AND METHODS

We present a case of ovarian cystadenoma and Brenner tumour, predominantly cystic.

Patient aged 71 years with a history of essential hypertension grade III, high additional risk. Chronic ischemic heart disease, stable exercise-induced angina pectoris, major left branch block. Mitral insufficiency grade I. Aortic insufficiency grade I. Large aortic stenosis. Obesity.

Patient refers to the Internal medicine section of the Integrated Outpatient Unit of the Infectious Diseases Hospital of Cluj, complaining of pollakiuria and marked enlargement of the abdomen in the last two years, which the patient considers to be due to obesity.

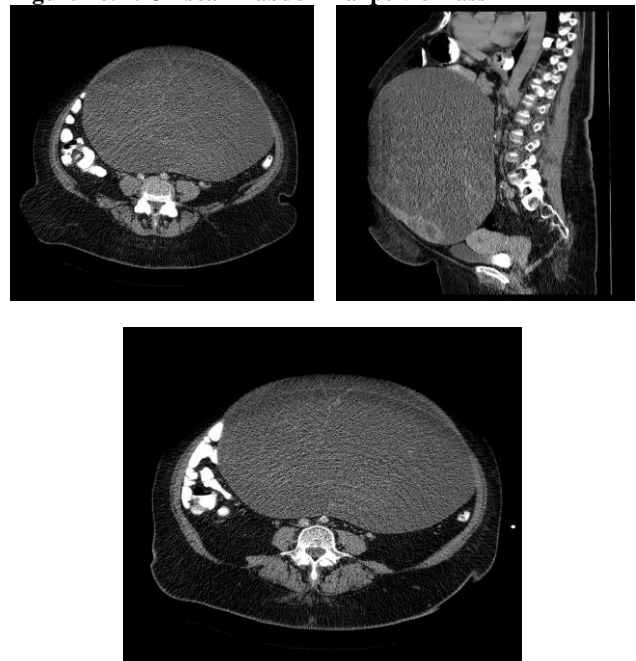
Clinical examination evidences a large abdomen, with

a pelvic-abdominal mass.

Ultrasound reveals a large tumoral mass, cystic, with inner septa and aspect of multi-loci.

Thoraco-abdominal-pelvic CT scan, native and contrast enhanced, evidences a massive abdominal-pelvic formation, starting most probably in the left appendage and extending over the trajectory of the left lumbar-ovarian pedicle, predominantly liquid, with tissular components and septa, which confer a multi-loci aspect. No other secondary determinations were observed by the thoraco-abdominal-pelvic CT scan (figure no. 1).

Figure no. 1. CT scan – abdominal pelvic mass



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Article received on 22.03.2018 and accepted for publication on 29.05.2018  
ACTA MEDICA TRANSILVANICA June 2018;23(2):67-68

## CLINICAL ASPECTS

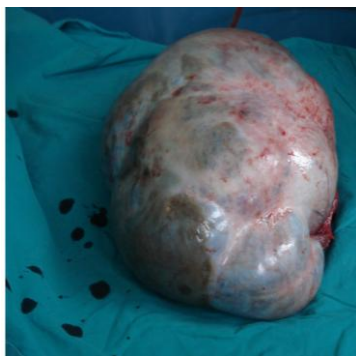
CA 125, performed preoperatively, was within normal range

The patient is referred to “Prof.Dr.Ion Chiricuță” Oncological Institute of Cluj-Napoca for specific surgical operation.

Intraoperatively a cystic tumour is evidenced, about 40/35 cm in size, firm consistency, containing fluid, without growths on the capsule surface, benign character, on the left ovary. Uterus slightly enlarged, regular contour, normal consistency, preserved mobility. Right ovary with normal aspect.

After visualization and dissection of the left ureter, extracapsular total hysterectomy (Wuart) is performed, with bilateral excision of appendages (figure no. 2 - operative piece).

**Figure no. 2. Operative piece**



Extemporaneous and histopathological examination evidenced:

- macroscopically:
  - left appendage: cystic modified ovary. The section contains and area of 15/12/5 cm with multi-loci aspect, the rest of the surface being smooth, with 0.3 cm thickness
  - right appendage: ovary of 2/1.5/1 cm, fallopian tube 5 cm length
  - uterus of 9/5/3 cm. Endometrium is thickened.
- microscopically:
  - left ovary with mucinous cystadenoma and Brenner tumor, predominantly cystic. The two lesions are benign, though the presence of a focus with a few atypical cells in the wall of the mucinous cyst require follow-up. Free fallopian tube
  - right ovary – injury free
  - uterus: - cervix and isthmus with glandular-cystic atrophy.
  - body – atrophic zonal endometrium, presenting glandular-cystic hyperplasia in the left horn, alterations that require continuation of the patient’s follow-up.

## DISCUSSIONS

Epithelial tumours represent 85% of the primary tumours of the ovary, including benign, malignant and borderline tumours.(5)

Mucinous cystadenoma is an epithelial tumour, often cystic, presenting numerous inner septa because of the double serosa, highly echogenic fluid and descending sediment (4). Like the ovarian neoplasm, a cystadenoma may present papillary growths, though less frequently.(2)

Brenner tumour is considered to be of epithelial, surface stromal origin, though some authors also described cases with germ cells.(6)

Brenner tumours may be benign, malignant or borderline.(5,6)

Ultrasound is the most common initial method for assessing the pelvic or ovarian masses.(3,4) The analysis of the tumour morphology and structure, combined with Doppler ultrasound, increases the positive prediction of the ultrasound diagnosis (4 – Buy, 1996; Jain, 1994; Fleischer, 1993; Twickler,1999). However, there is no clear distinction between the ultrasound aspects of ovarian.(3,4)

Though ultrasound is a readily available assessment method for ovarian tumours, diagnostic problems may appear because of the unspecific nature of the masses and also because of the difficulties in examining patients with obesity or large tumours.

Certain benign ovarian tumours, with solid and cystic components, may mimic malignant ovarian tumours when assessed by imaging methods.(2)

## CONCLUSIONS

Brenner tumour and the mucinous cystadenoma are epithelial tumours of the ovary that raise imaging diagnostic problems because of their unspecific aspect.

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