

## Case 1873

### Mucinous cystadenoma of the appendix

T.M. Cunha\*, C. Couceiro\*, A.P. Vasconcelos\*, A. Félix\*\*

**Section:** Abdominal Imaging

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**Patient:** 53 year(s), female

## Clinical Summary

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A cystic mass in the right iliac fossa of an asymptomatic patient.

## Clinical History and Imaging Procedures

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A cystic mass was found in the right iliac fossa of this asymptomatic patient during a routine gynaecological ultrasound scan by the transabdominal approach (Fig. 1). The mass measured 7.7cm x 3.5cm, with no internal echoes and without solid areas. It was painful with pressure of the probe. Transvaginal ultrasound was not able to identify the mass.

The patient underwent a CT scan, which confirmed that the cystic lesion was roughly sausage shaped and seemed to be contiguous with the ileo-caecal complex. The cystic mass was thin walled, showed uniform enhancement (after endovenous contrast), and was low-attenuation with no parietal nodules (Fig. 2).

An exploratory laparotomy was performed, for a suspected cystic lesion of the right adnexa, and an intraoperative diagnosis of mucocele of the ileo-caecal appendix was made (Fig. 3). The final pathological result was mucinous cystadenoma.

## Discussion

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Cystic lesions of the appendix are rare (being found in 0.25% of appendectomies), although slightly more common in female patients. These lesions are not always neoplastic and include different entities, such as mucocele, and many other aetiological processes, such as inflammation, hyperplasia, benign (mucinous cystadenoma) or malignant (mucinous adenocarcinoma) neoplasms.

The preoperative imaging diagnosis of these lesions is difficult and needs extensive differential diagnosis with other intra- or retro-peritoneal lesions. In postmenopausal women, in whom cystic appendiceal masses are slightly more common, the differential diagnosis with adnexal lesions is particularly difficult. In many cases in this age group the ovaries can no longer be individualised by sonography. Until recently, the diagnosis was most often made incidentally during surgery, such as genitourinary tract operations, cholecystectomy, appendectomy or exploratory laparotomy procedures.

In the literature, the imaging criteria for appendicular cystic lesions are well known. Early in 1947, Euphrat described the signs on conventional radiological examination (internal displacement of the caecum, calcium deposits on the walls, non-filling of the appendix). On ultrasonography, the main characteristics of these cystic lesions are good delineation of the mass, a size of around 5-6cm in the largest dimension, hypoechogenicity, heterogeneity, calcifications and a wall thickness of less than 6mm. On CT these cystic lesions usually have a low-attenuation value, are well encapsulated, sometimes have septations or calcifications and may be adherent to the small bowel loops. An enhancing mural nodule within the wall of the cystic lesion has been described as suggestive of malignancy.

## Final Diagnosis

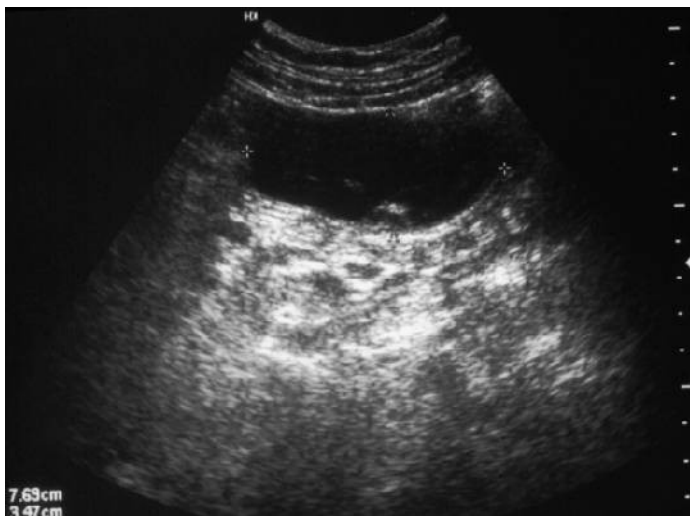
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Mucinous cystadenoma of the appendix

## Figures

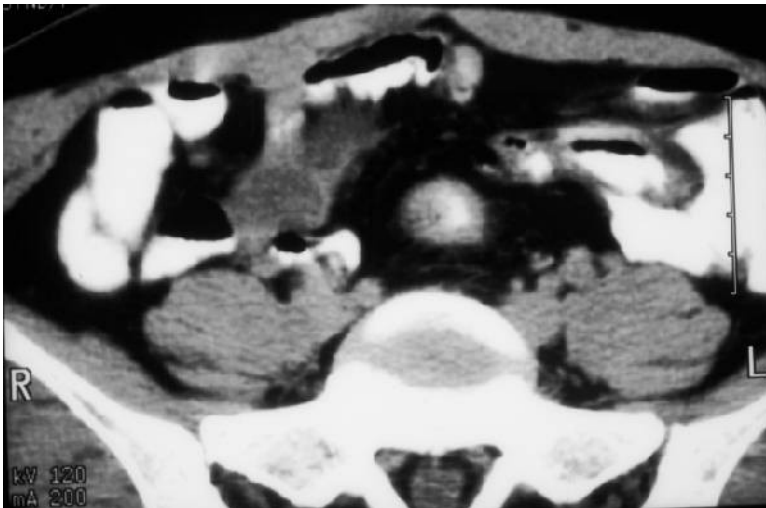
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**Figure 1 Pelvic transabdominal ultrasound**

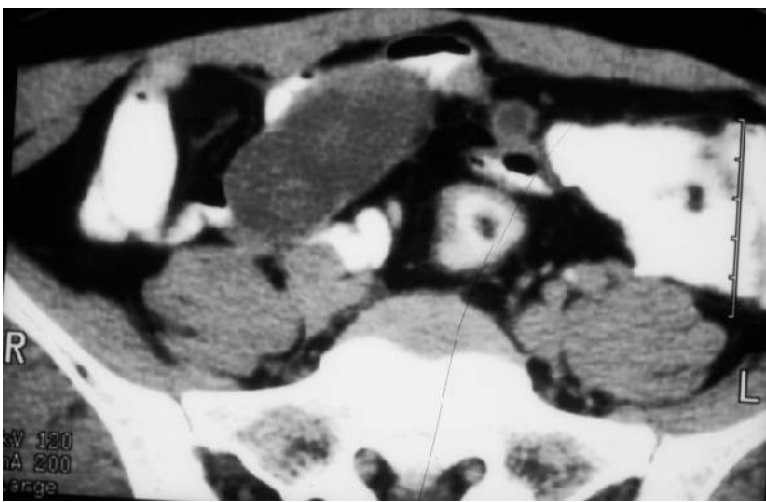


Pelvic transabdominal ultrasound scan shows an ovoid cystic image, without internal echoes, measuring 7.7cm x 3.5cm, localised in the right adnexal area.

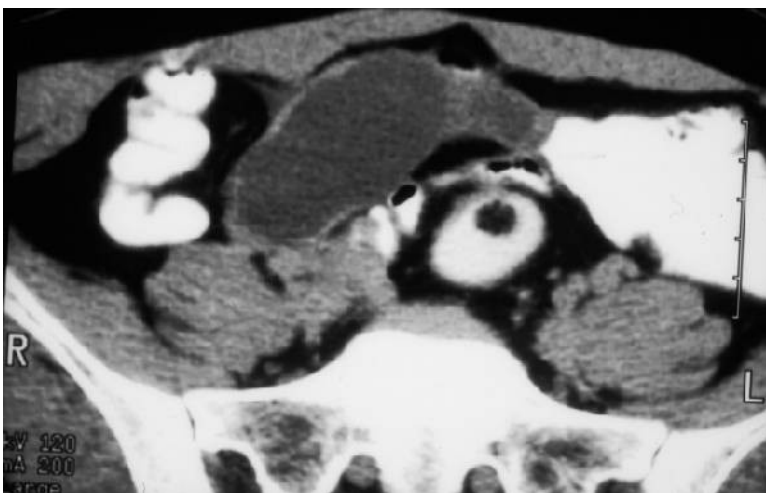
**Figure 2 Pelvic CT scan**



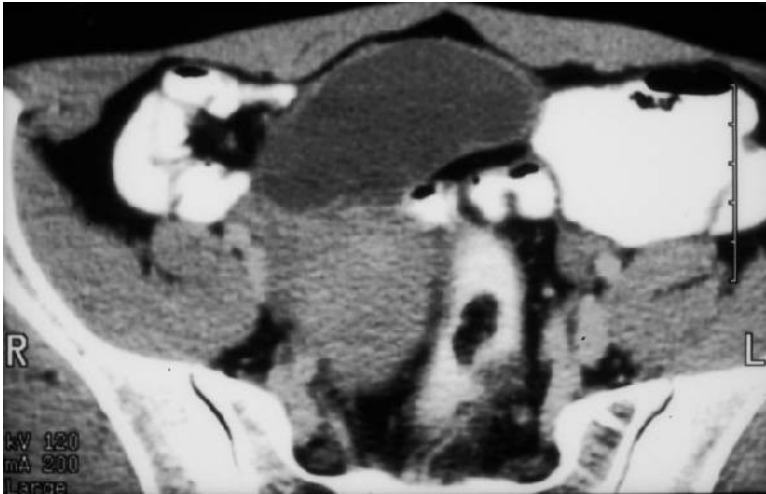
Pelvic CT scan identifies a sausage-shaped cystic lesion, contiguous with the ileo-caecal complex.



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**Figure 3 Gross specimen**



The ileo-caecal appendix.



The ileo-caecal appendix, in longitudinal section, filled with a gelatinous substance.

**MeSH**

**Cystadenoma, Mucinous [C04.557.470.035.320.225]**

A multilocular tumor with mucin secreting epithelium. They are most often found in the ovary, but are also found in the pancreas, appendix, and rarely, retroperitoneal and in the urinary bladder. They are considered to have low-grade malignant potential.

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## References

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## Citation

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