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# A Rare Case of a Large Mucinous Cystadenoma of the Tail of the Pancreas

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**Abstract** **Case Report**

Mucinous cystadenomas are part of the cystic tumours of the pancreas. They are benign tumours whose malignant potential recommends surgical resection. They are often discovered incidentally, in 75% of cases. These tumours have radiological characteristics that suggest the diagnosis. There are known radiological criteria predictive of malignancy, including a tumour diameter ≥ 3cm. Furthermore, the diagnosis of certainty is provided by anatomopathological examination. Practitioners must bear in mind the existence of these tumours, their malignant potential, and the possibility of a benign nature despite the presence of radiological criteria predictive of malignancy. Treatment consists of surgical resection without cystic rupture in order to prevent the risk of recurrence.

**Keywords:** Cystadenoma, incidental, resection, malignancy, large.



## INTRODUCTION

Pancreatic cystic lesions are increasingly being discovered incidentally due, on one hand, to the improvement in pancreatic imaging performance and, on the other hand, to the enhanced understanding of the characteristics of these lesions. It is becoming more common in primary care medicine to encounter such "incidentalomas" [1, 2].

Mucinous cystadenomas, which are rare benign tumors, have malignant potential recommending surgical resection [3, 4].

We report the case of a patient treated for a mucinous cystadenoma of the pancreas in the department of digestive cancer surgery and liver transplantation of the Department of General Surgery at the University Hospital of Casablanca.

The aim is to remind practitioners to bear in mind the existence of mucinous cystadenomas of the pancreas, and that the radiological criteria predictive of malignancy, with a tumour diameter ≥ 3 cm, do not ipso facto indicate a cystadenocarcinoma, in order to establish their diagnosis and promptly adopt an appropriate approach given their risk of degeneration, which is countered by suitable surgical treatment.

## PATIENT AND OBSERVATION

The patient is a 57-year-old woman, with no particular medical history, who presented with localized abdominal pain in the left hypochondrium, described as heaviness, without other associated symptoms, all evolving in a context of preserved general condition.

Abdominal examination did not reveal an abdominal mass due to the patient's noted obesity, with a body mass index of 35.2 kg/m².

Abdominal ultrasound revealed the presence of an abdominal mass of 370 ml in volume (Figure 1), suggestive of a large cyst in the tail of the pancreas.

A thoraco-abdomino-pelvic computed tomography scan using the helical acquisition technique with and without injection of iodinated contrast agent revealed a round, fluid-dense, well-limited, thin-walled retroperitoneal formation, discreetly enhanced after contrast injection, measuring 94 mm x 88 mm in the tail of the pancreas, primarily suggesting a mucinous cystadenoma. This formation extended posteriorly to the left kidney without loss of the separation line. Superiorly, it displaced the splenic vein, which remained patent, and contacted the gastric antrum without loss of the separation line (Figure 2).

The carcinoembryonic antigen and carbohydrate antigen 19.9 levels were normal. In view of the differential diagnosis with hydatid cysts, hydatid serology was perfomed and returned negative, bearing in mind that it only has a negative predictive value.

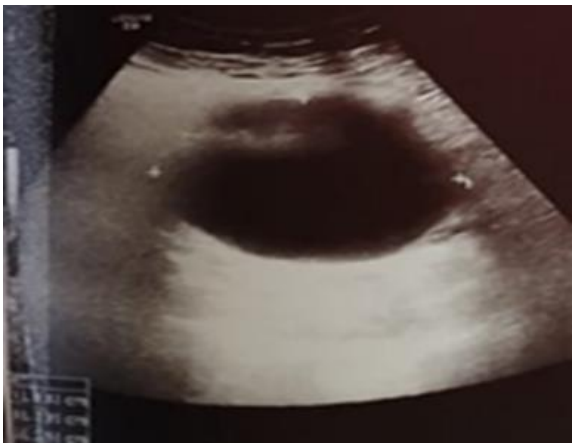

**Figure 1: Ultrasonographic appearance of the retroperitoneal mass**

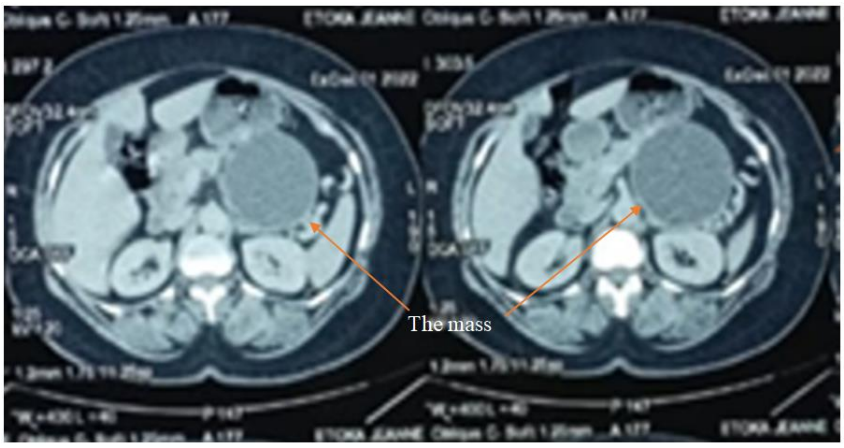


**Figure 2: Scannographic appearance of the retroperitoneal mass**

The patient's case was discussed at a multidisciplinary consultation meeting and the decision was made for surgery. The operation consisted of a caudal pancreatectomy removing the cystic mass from the tail of the pancreas (Figure 3) while preserving the spleen. Pre- and retro-pancreatic drainage was performed using two Delbet blades, and left subphrenic drainage was achieved with a Salem tube.

Exploration revealed:

- Absence of peritoneal effusion;
- Absence of peritoneal carcinomatosis nodules;
- Absence of hepatic metastases;
- Presence of a cystic mass measuring 12 cm in its longest axis (Figure 3) at the expense of the tail of the pancreas.

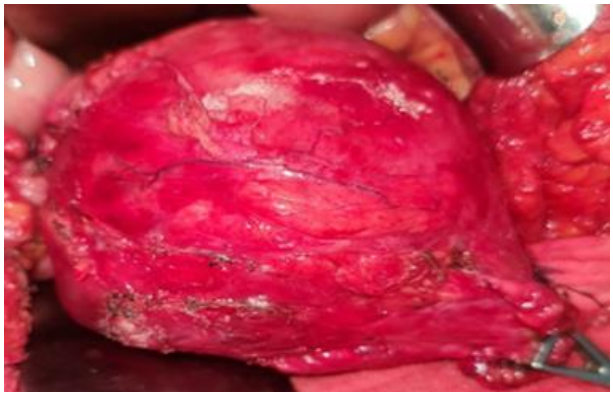

**Figure 3: Surgical specimen**

The post-operative course was uneventful. The patient received therapy consisting of somatostatin, analgesics, and preventive heparin therapy. The left subphrenic drain was removed on the fourth post-operative day, and the Delbet blade on the sixth day, and the patient was discharged the same day.

Definitive diagnosis was confirmed by histopathological examination, which revealed a cystic formation lined with mucinous epithelium, devoid of any atypia, focally abraded, and replaced by foamy histiocytes. The underlying connective tissue resembled pseudo-ovarian tissue. The pancreatic parenchyma taken with the mass showed no abnormalities.

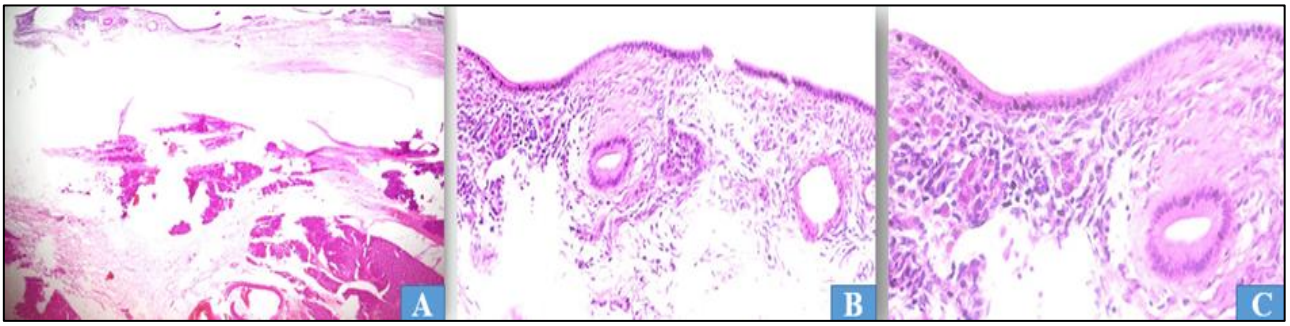


**Figure 4: Histological images of the surgical specimen**

Histological examination with haematoxylin and eosin (A, 10x), (B, 20x) and (C, 40x) showing a cystic wall lined by a single layer of mucinous columnar epithelium, without atypia.

## DISCUSSION

Mucinous cystadenomas are benign tumours with malignant potential, showing a clear female predominance (female-to-male sex ratio of 10/1) and an average age of onset of around fifty years [5].

These tumours are generally asymptomatic in 75% of cases, hence their incidental discovery. Symptoms may include non-specific signs such as abdominal pain, constipation and jaundice. Some of these tumours are revealed by pancreatitis [6].

In more than 90% of cases, cystadenomas are found in the body and tail of the pancreas and measure between 10 and 30 mm on average. They do not communicate with the pancreatic ducts [2, 7].

Computed tomography usually shows a uni-locular macrocyst, sometimes with calcifications and no communication with the main pancreatic duct; septae may be present but are not obligatory, with a preferential location in the posterior part of the body and/or the tail of the pancreas. A size ≥ 3 cm, the presence of a solid component, parietal thickening, mural nodules, intracystic vegetations and peripheral calcifications are highly predictive of malignancy [8, 9].

In our case, the computed tomography showed a 12 cm long, rounded, fluid-dense mass with a thin wall and no significant calcification.

Resection was performed en bloc without rupture of the cyst. It should be noted that en bloc resection without rupture should be preferred, given the potential for malignant transformation, in order to avoid locoregional recurrence [10].

## CONCLUSION

Mucinous cystadenomas of the pancreas remain rare tumours. Often asymptomatic and discovered incidentally, their symptoms are atypical when present. There is a clear predominance of the female sex. Tumour diameter ≥ 3 cm, although predictive of malignancy, does not immediately indicate cystadenocarcinoma. Definitive diagnosis is confirmed by histopathological examination. Treatment is surgical and en bloc resection without rupture should be encouraged.

**Conflicts of Interest:** The authors declare no conflict of interest.

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