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Mucinous Cystic Neoplasm of the Pancreas in A 34-Year-Old Woman with Generalized Anxiety Disorder: A Case Report

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Abstract **Case Report**

Mucinous cystic neoplasms (MCNs) of the pancreas are rare, predominantly affecting women, and carry a risk of alignant transformation. We report the case of a 34-year-old woman with a known history of generalized anxiety disorder, diagnosed with a large mucinous pancreatic cystic mass. Radiological findings were suggestive of a mucinous cystadenoma located in the body and tail of the pancreas. She underwent a distal pancreatectomy with splenectomy, and postoperative outcomes were uneventful. This case underscores the importance of early diagnosis, appropriate surgical intervention, and multidisciplinary care, especially in patients with psychiatric comorbidities.

Keywords: Mucinous cystic neoplasm (MCN), Pancreatectomy, Splenectomy, Generalized anxiety disorder, Cystic mass.

INTRODUCTION

Pancreatic cystic lesions are increasingly detected due to the widespread use of high-resolution imaging. Among these lesions, mucinous cystic neoplasms (MCNs) represent a distinct pathological entity characterized by mucin-producing epithelium and ovarian-type stroma. These tumors predominantly affect middle-aged women and are considered remalignant. Although often asymptomatic, MCNs larger than 4 cm or those with worrisome features necessitate surgical resection due to their potential for malignancy [1,2].

This report describes the case of a young woman with a psychiatric history who was incidentally found to have a large pancreatic MCN. We aim to highlight the clinical, radiological, and surgical considerations, as well as the interplay between psychiatric comorbidities and surgical outcomes.

CASE REPORT

A 34-year-old woman, under psychiatric follow-up for generalized anxiety disorder, presented with vague upper abdominal discomfort. Abdominal CT scan revealed a large, well-circumscribed cystic lesion in the body and tail of the pancreas, measuring 105 x 85 mm, suggestive of a mucinous cystadenoma or pseudocyst. Subsequent MRI confirmed a unilocular, regular-thin-walled cystic mass measuring 95 x 92 x 105 mm with homogeneous mucinous and hemorrhagic content, consistent with a mucinous cystic neoplasm.

The patient was scheduled for surgery and underwent distal pancreatectomy with splenectomy through a left subcostal approach. Intraoperatively, a 13 cm cystic mass involving the body and tail of the pancreas was observed. The pancreas was transected at the neck using a GIA stapler, and a drain was placed adjacent to the pancreatic stump. The postoperative course was uneventful. The drain was removed on postoperative day 3, and the patient was discharged with standard post-splenectomy vaccination instructions.

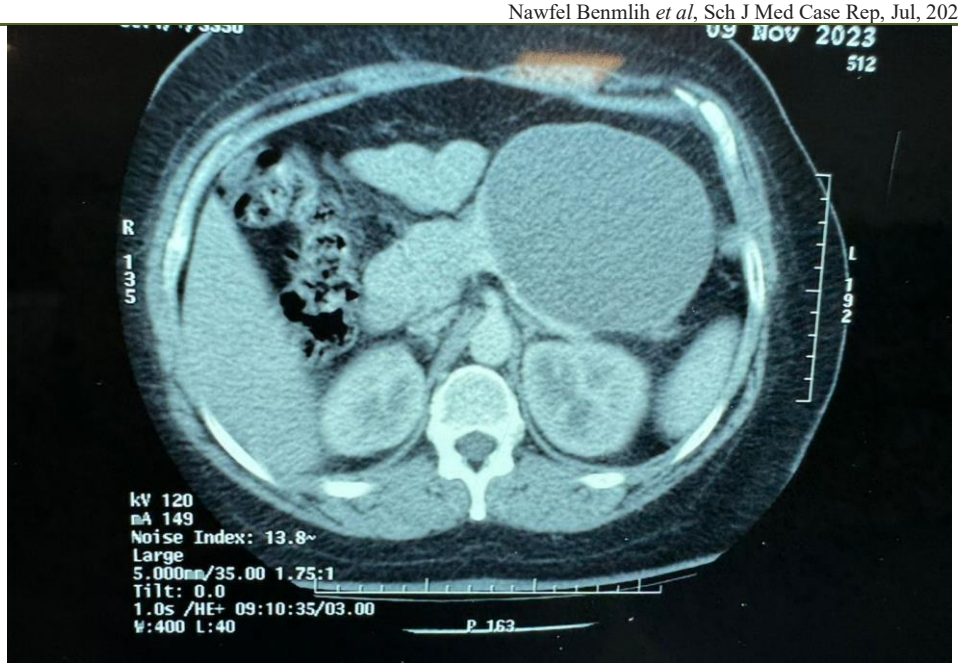

Figure 1: CT scan showing the Mucinous Cystic Neoplasm of the Pancreas

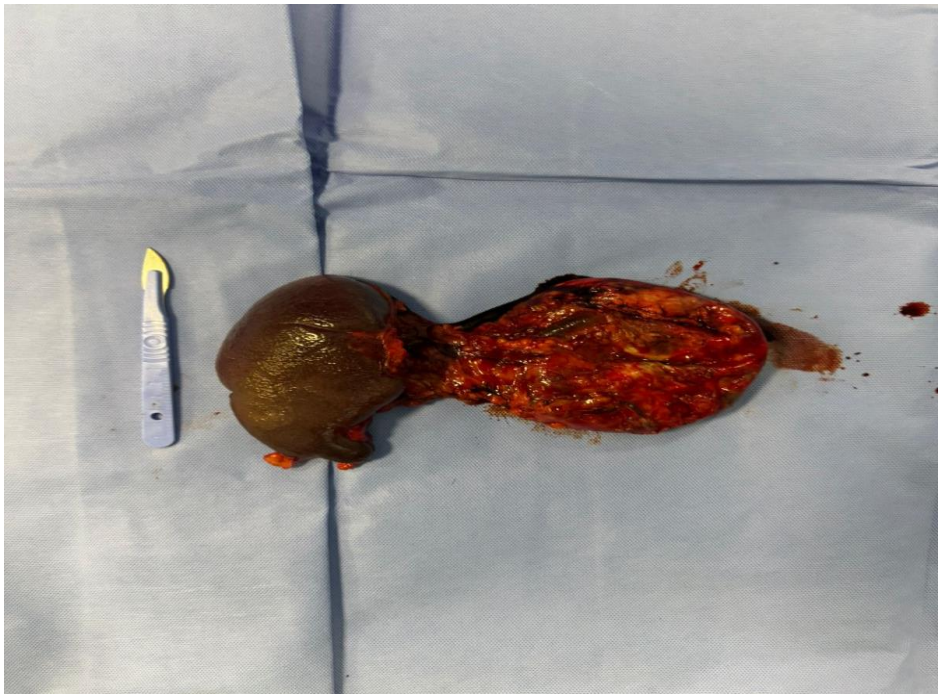

Figure 2: left splenopancreatectomy specimen

DISCUSSION

Mucinous cystic neoplasms of the pancreas are uncommon, accounting for approximately 10–15% of pancreatic cystic tumors [1,3]. They almost exclusively affect women (95%) and are typically located in the body or tail of the pancreas [4]. Histologically, they are defined by mucin-producing columnar epithelium and an underlying ovarian-type stroma, which is pathognomonic [5].

The natural history of MCNs remains incompletely understood, but their potential for malignant transformation mandates a cautious approach. The risk of malignancy increases with tumor size, mural nodules, and presence of solid components [2,6]. Current guidelines, such as those from the Fukuoka consensus, recommend resection for all surgically fit patients with MCNs larger than 4 cm, particularly if symptomatic [1].

Radiologically, MCNs are characterized by unilocular or septated cysts with smooth, thickened walls, and sometimes internal hemorrhagic or mucinous content [7]. MRI is particularly helpful in evaluating the content and structure of the lesion, aiding in differentiation from other cystic entities such as serous

cystadenomas or intraductal papillary mucinous neoplasms (IPMNs).

Surgical resection remains the cornerstone of management for MCNs. Distal pancreatectomy with or without splenectomy is the standard procedure for lesions located in the body or tail of the pancreas [4,8]. In this case, a splenectomy was indicated due to the intimate association between the cystic mass and splenic vasculature. Although minimally invasive techniques are increasingly utilized, the open approach remains standard in large or potentially complicated cases.

Postoperative outcomes are generally favorable, with low morbidity in elective, well-prepared surgeries. Importantly, splenectomy necessitates adherence to vaccination protocols to prevent overwhelming post-splenectomy infection (OPSI) [9].

Psychiatric comorbidities, such as anxiety disorders, may complicate the diagnostic and perioperative course. These patients are at higher risk for delayed presentation, altered pain perception, increased perioperative anxiety, and postoperative complications such as poor adherence or somatic symptom amplification [10]. A multidisciplinary approach, including liaison psychiatry, is crucial in optimizing outcomes in such scenarios.

In this case, the patient benefited from early surgical referral, appropriate imaging, and successful operative management with a smooth recovery. Her psychiatric background necessitated enhanced perioperative psychological support and patient education, which likely contributed to the favorable outcome.

Conclusion

Mucinous cystic neoplasms of the pancreas, though rare, must be recognized and managed promptly due to their malignant potential. Radiological evaluation, guided by size and morphological features, plays a crucial role in diagnosis. Surgical resection remains the mainstay of treatment. Psychiatric comorbidities should not be underestimated, as they may influence clinical presentation, management, and recovery. Comprehensive, multidisciplinary care is essential in achieving optimal results.

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