

Case Report

Encountering a Large Omental Cyst: Diagnosis and Surgical Approach

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ABSTRACT

Omental cysts are rare intra-abdominal lesions often discovered incidentally. Here, we present a case of a 38-year-old female who presented with abdominal discomfort and was found to have a large omental cyst. The diagnosis was confirmed through imaging studies, and surgical excision was performed. The patient recovered well postoperatively with no recurrence during the follow-up period.

Keywords: Mechanical intestinal obstruction, Neoplasms, Surgical outcomes, Adults

INTRODUCTION

Omental cysts, though infrequent, present unique challenges in diagnosis and management within the realm of intra-abdominal pathology. Originating from the greater omentum, an anatomical structure rich in lymphatic and mesothelial elements, these cystic lesions represent an intriguing aspect of abdominal pathology.

While the precise etiology of omental cysts remains elusive, they are hypothesized to arise from developmental anomalies or acquired conditions affecting the lymphatic or mesothelial tissues within the omentum. These cysts often remain asymptomatic, evading detection until they reach a substantial size or are incidentally discovered during diagnostic imaging or surgical exploration. However, when symptomatic,

they may manifest with nonspecific abdominal discomfort, bloating, or the presence of a palpable mass, posing diagnostic challenges for clinicians.

The rarity of omental cysts contributes to the complexity of their management. Despite advances in imaging modalities such as ultrasound, computed tomography (CT), and magnetic resonance imaging (MRI), distinguishing omental cysts from other intra-abdominal lesions can be challenging due to overlapping radiological features. Furthermore, the optimal management approach for large omental cysts remains a topic of debate, with considerations including the risk of complications such as rupture, infection, or torsion, as well as the potential for recurrence following surgical excision.

In this context, a comprehensive understanding of the clinical presentation, diagnostic evaluation, and management strategies for large omental cysts is crucial. This case report aims to contribute to the existing literature by elucidating the clinical course of a patient diagnosed with a sizable omental cyst, detailing the diagnostic workup, surgical intervention, and postoperative outcomes. By sharing insights gleaned from this case, we aim to enhance clinicians' ability to recognize and manage this rare but clinically significant entity effectively.

CASE PRESENTATION:

A 30 year-old female presented to the outpatient clinic with complaints of vague abdominal discomfort and occasional bloating for the past three months. Physical examination revealed a soft, non-tender abdomen with a palpable mass in the left upper quadrant. Laboratory investigations were within normal limits.

Abdominal ultrasound and computed tomography (CT) scan revealed a large, well-defined cystic lesion measuring 12 cm × 10 cm arising from the greater omentum. There were no signs of septations or solid components within the cyst. Based on these findings, a diagnosis of omental cyst was made.

MANAGEMENT:

The patient underwent exploratory laparotomy and excision of the omental cyst. Intraoperatively, the cyst was found to be arising from the greater omentum without any adhesions to adjacent structures. Complete excision of the cyst was achieved without complications.



Fig 1: Large omental cyst

OUTCOME:

The patient had an uneventful postoperative recovery and was discharged home on the third postoperative day. Histopathological examination confirmed the diagnosis of an omental cyst with no evidence of malignancy.

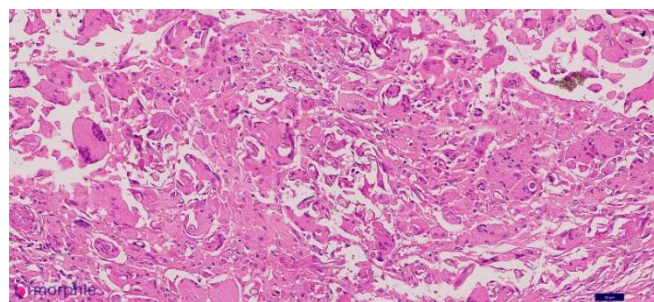


Fig 2

Discussion:

Large omental cysts present a unique set of challenges in diagnosis and management due to their rarity and nonspecific clinical manifestations. Despite advancements in diagnostic imaging techniques, accurately differentiating omental cysts from other intra-abdominal lesions remains a diagnostic conundrum. The lack of pathognomonic features often necessitates a multidisciplinary approach involving radiologists, surgeons, and pathologists to achieve an accurate diagnosis.

The management of large omental cysts revolves around the balance between conservative observation and surgical intervention. While smaller cysts may be managed conservatively with serial imaging and clinical monitoring, surgical excision is typically recommended for symptomatic or large cysts to alleviate symptoms and mitigate the risk of complications. Laparoscopic excision has emerged as the preferred surgical approach for its minimally invasive nature and favorable postoperative outcomes, including reduced hospital stay and quicker recovery times.

One of the primary concerns in managing large omental cysts is the risk of complications such as rupture, infection, or torsion. These complications can lead to potentially life-threatening consequences and underscore the importance of prompt diagnosis and intervention. Additionally, the potential for cyst recurrence following surgical excision necessitates careful long-term follow-up to monitor for any signs of recurrence or complications.

Histopathological examination of excised omental cysts is essential to confirm the diagnosis and rule out malignancy. While omental cysts are typically benign, rare cases of malignant transformation have been reported, underscoring the importance of thorough pathological evaluation.

In conclusion, large omental cysts pose diagnostic and management challenges due to their rarity and nonspecific clinical features. A multidisciplinary approach involving clinical correlation, advanced imaging modalities, and surgical expertise is essential for accurate diagnosis and optimal management. Continued research and collaboration are warranted to further refine diagnostic and therapeutic strategies for this uncommon but clinically significant entity.

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