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Ileal Adenocarcinoma: A Rare Case Report and Review of the Literature

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Abstract **Case Report**

Ileal tumors, and more specifically ileal adenocarcinomas, are exceedingly rare occurrences in clinical practice. In this article, we present a unique case involving a 56-year-old patient diagnosed with ileal adenocarcinoma, a malignancy originating in the ileum. This comprehensive case study explores various facets of this uncommon tumor, including clinical presentation, radiological findings, histopathological insights, and initial management strategies. The patient, previously healthy with no gastrointestinal issues, sought medical attention for severe abdominal pain localized to the right lower quadrant. Medical imaging revealed a substantial tumor mass with complex characteristics, while colonoscopy confirmed the presence of an ulcerated and necrotic mass in the terminal ileum. Histopathological examination confirmed the diagnosis of ileal adenocarcinoma. The patient's treatment journey began with chemotherapy, with potential surgical intervention contingent upon her response. This case underscores the challenges and considerations involved in addressing this exceptional medical condition.

Keywords: Ileal adenocarcinoma, colonoscopy, surgical management, multimodal approach.

INTRODUCTION

Ileal tumors are exceptionally rare, and among this subset, ileal adenocarcinoma is an exceptionally uncommon occurrence [1]. In this article, we provide an in-depth exploration of a unique medical case involving a 56-year-old patient who was diagnosed with ileal adenocarcinoma. Ileal adenocarcinoma is a malignancy that originates in the ileum, the lowermost part of the small intestine. Our comprehensive case study delves into several key aspects of this rare tumor, including its clinical presentation, radiological findings, and histopathological discoveries. Furthermore, we offer a detailed account of the initial medical management and treatment strategy employed for the patient, shedding light on the challenges and considerations involved in addressing this extraordinary medical condition.".

CASE PRESENTATION

The patient under consideration sought medical attention at our hospital due to the persistence of excruciating abdominal pain localized to the right lower quadrant. Notably, the patient had an unremarkable medical history, devoid of any prior significant illnesses, bowel disturbances, or gastrointestinal bleeding episodes. Upon clinical examination, we observed a palpable, non-tender mass measuring approximately 6 cm in its longest dimension, which was distinctly situated within the right lower quadrant of the abdomen. Remarkably, no signs of peripheral lymphadenopathy were detected during the evaluation.

A comprehensive biological evaluation was initiated, yielding valuable insights into the patient's health status. Her hemoglobin level was measured at 12.9 g/dl, and her white blood cell count was 7,570/uL. Platelet count stood at 201,000/uL. Notably, inflammatory markers were within the normal range, with a C-reactive protein (CRP) level of 3.32 mg/L.

Furthermore, a battery of tumor markers was analyzed, all of which returned values within the reference ranges. Specifically, the patient's CA125 was 9.9, and carcinoembryonic antigen (CEA) was 2.8. This comprehensive assessment also included a normal hepatic workup, thus providing a thorough characterization of the patient's clinical profile."

Imaging

Medical imaging played a pivotal role in the diagnostic process, unveiling critical details about this tumor. Notably, a substantial tumor mass became evident in the right flank and right lower quadrant, measuring a significant 82 x 110 x 122 mm in size. Upon contrast

enhancement, this mass exhibited complex characteristics, including heterogeneous enhancement with discernible regions of necrosis and the presence of air bubbles. Furthermore, the imaging revealed a pronounced infiltration of neighboring adipose tissue, with a few peripheral lymph nodes noted, the largest among them measuring 9.9 x 9.46 mm.

Significantly, this tumor mass was closely juxtaposed to the right colon and certain ileal loops, resulting in the displacement of the anterior abdominal wall in specific areas, accompanied by a discernible loss of the fat separation line. Towards its posterior aspect, the tumor intimately contacted the right psoas muscle, again causing a conspicuous obliteration of the fat separation line (Figure 1).

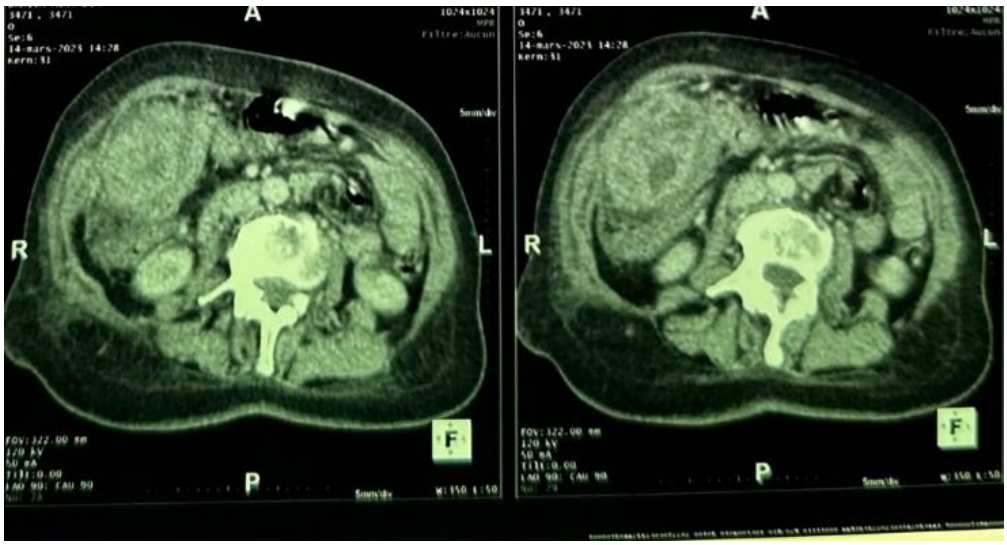

Figure 1: CT scan of the lesion

Further investigations

A colonoscopy was performed to evaluate the nature of the mass and its impact on the digestive system. The examination revealed the presence of an ulcerated, budding, and necrotic mass in the terminal ileum. A biopsy of the mass was taken for a more detailed histopathological evaluation.

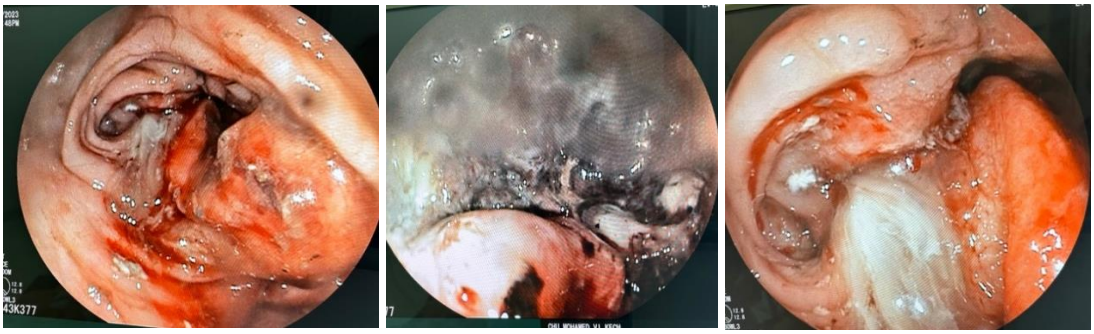

Figure 2: endoscopic findings

Diagnosis

Histopathological examination of the biopsy confirmed the diagnosis of ileal adenocarcinoma, a malignant tumor originating from the glandular cells of the ileum.

Management

The patient was initially managed with chemotherapy, aiming to reduce the size of the tumor and prepare for possible surgical intervention depending on the patient's response.

DISCUSSION

Ileal adenocarcinoma is an exceedingly rare tumor that poses diagnostic challenges due to its unusual location. A comprehensive clinical assessment, precise medical imaging, and histopathological examinations are essential to confirm the diagnosis and devise an appropriate treatment plan. This case underscores the importance of collaboration between physicians, radiologists, and pathologists to ensure effective management of patients with this rare disease. The clinical presentation of ileal adenocarcinoma can vary widely, making it challenging to diagnose. In our case, the patient presented with persistent right lower quadrant abdominal pain. This symptom, though nonspecific, prompted further investigation. Ileal adenocarcinoma

can also manifest with symptoms such as weight loss, altered bowel habits, and, in some cases, gastrointestinal bleeding. Clinicians should maintain a high index of suspicion when encountering patients with these symptoms, particularly when no other underlying gastrointestinal conditions are evident [1-3].

Medical imaging plays a pivotal role in the diagnosis and staging of ileal adenocarcinoma. In our patient, imaging studies, including computed tomography (CT) scans, highlighted a voluminous tumor mass in the right flank and right lower quadrant. The tumor displayed heterogeneous enhancement with areas of necrosis and air bubbles, a characteristic feature of this malignancy. Additionally, significant infiltration of neighboring fat was observed, further emphasizing the invasive nature of the tumor. These findings underscore the importance of imaging modalities in guiding diagnosis and treatment planning. The management of ileal adenocarcinoma typically involves a multimodal approach. Surgical resection remains the primary treatment option for localized disease, with the goal of achieving complete tumor removal. In our case, the patient was initially managed with chemotherapy to reduce the tumor's size and facilitate a more successful surgical intervention in the future. The decision to proceed with surgery is often contingent on the patient's response to chemotherapy. The prognosis of ileal adenocarcinoma varies depending on several factors, including the stage at diagnosis and the aggressiveness of the tumor. As highlighted in our literature review, there is a paucity of data regarding the epidemiology, etiology, and optimal treatment strategies for this rare malignancy. Further research is warranted to better understand the risk factors and pathogenesis of ileal adenocarcinoma. Additionally, studies investigating the role of adjuvant therapies, such as radiation therapy and targeted therapies, in improving outcomes for patients with advanced disease are needed [4-7].

Collaborative Care

This case underscores the importance of collaboration among healthcare professionals, including physicians, radiologists, and pathologists. A multidisciplinary approach is crucial for accurate diagnosis, effective treatment planning, and optimal patient care. The rarity of ileal adenocarcinoma necessitates that healthcare providers maintain open lines of communication and stay updated on the latest advances in diagnosis and treatment.

CONCLUSION

Ileal adenocarcinoma is a challenging malignancy to diagnose and manage due to its rarity and nonspecific clinical presentation. This case report highlights the significance of a comprehensive clinical assessment, precise medical imaging, and histopathological examinations for confirming the diagnosis. It also emphasizes the importance of a coordinated, multidisciplinary approach in managing this rare disease. Further research is essential to improve our understanding of ileal adenocarcinoma and enhance treatment options for affected patients.

Conflicts of Interest

The authors declare no conflicts of interest.

Authors' Contributions

All authors contributed to the conduct of this study. All authors have read and approved the final manuscript.

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