A Rare Presentation of Cholecysto-Cutaneous Fistula Manifesting as a Right Abdominal Wall Abscess

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Abstract: Cholecysto-cutaneous fistula (CCF) is an exceedingly rare complication of chronic gallbladder disease. This case involves a 69-year-old Hispanic male presenting with an abdominal wall abscess that revealed multiple gallstones upon surgical drainage. The presence of a fistulous connection between the gallbladder and abdominal wall underscores the importance of early recognition and appropriate surgical management to prevent further complications.

Introduction

The case involves a cholecysto-cutaneous fistula (CCF) which arises due to a prolonged inflammatory process, typically due to chronic cholecystitis or unresolved gallstone disease, leads to the formation of an abnormal connection between the gallbladder and the skin surface.

CCF is now exceedingly uncommon, making the documentation of such cases vital for advancing medical understanding. This case is novel because it showcases the atypical presentation of CCF as an abdominal wall abscess. The discovery of multiple gallstones during surgical drainage adds an layer of complexity , emphasizing the need for heightened clinical suspicion and diagnostic evaluations in patients presenting with abdominal abscesses of unclear etiology.

By documenting the clinical course and management strategies for this rare pathology, this report contributes to the existing medical literature, offering insights that could improve diagnostic accuracy and patient outcomes in future cases .

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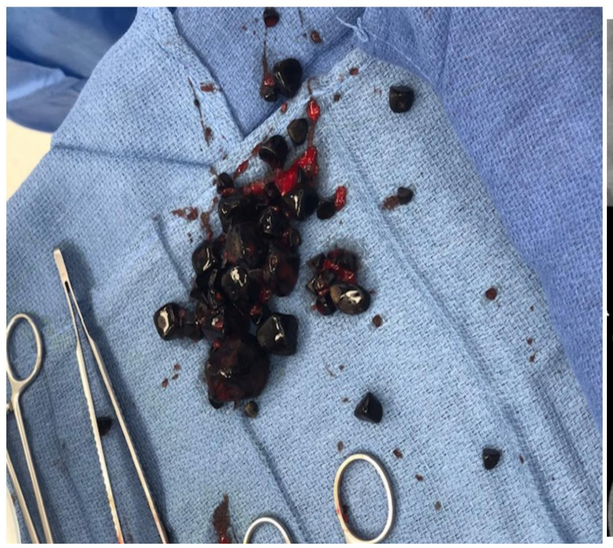
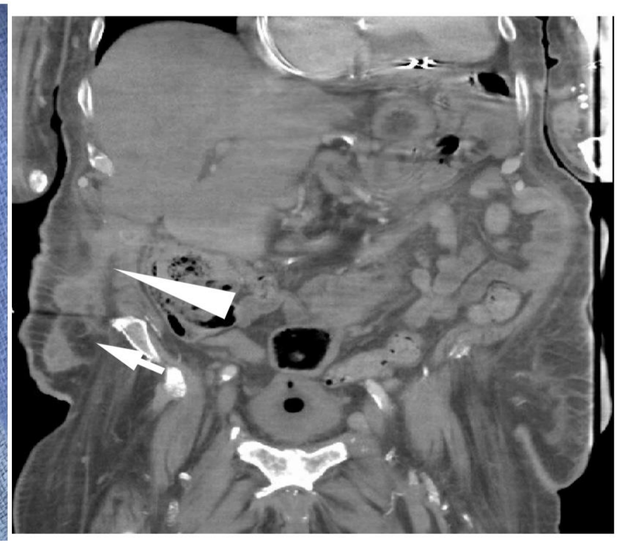
Case Presentation

A 69-year-old Hispanic male with type 2 diabetes mellitus, hypertension, cirrhosis, and prior stroke was admitted for evaluation of a progressively worsening right abdominal wall wound with purulent drainage persisting two months. He initially presented with a blister-like lesion on the right lower abdomen that began as a hard lump with swelling and redness before draining. The ulcer had worsened over time .
Family reported persistent foul-smelling yellowish discharge, and he required frequent shirt changes due to drainage. Despite cleaning with distilled water and Neosporin, no improvement occurred, prompting admission.

Exam showed a soft abdomen with a draining sinus producing seropurulent fluid from the right abdominal wound. Imaging revealed a 10 x 1.6 x 8.9 cm anterior abdominal wall abscess. CT highlighted the abscess and suggested possible underlying pathology Patient underwent I&D. During I&D, gallstones were identified within the abscess cavity (Image Below), confirming a CCF. The abscess was evacuated, irrigated, packed with iodoform gauze, and dressed. He tolerated the procedure well and recovered stably. Culture grew ESBL-positive E. coli sensitive to Bactrim. He was discharged in stable condition on a 14-day course of Bactrim with close surgical follow-up.





Discussion/ Conclusion

CCF ,is an important differential to consider in patients presenting with abdominal wall abscesses,. There are less than 100 cases of CCF reported in the medical literature. Most cases reported in elderly females with a mean age of 72.8 years . Patients often present with symptoms such as fever, nausea, and vomiting, drainage from the (RUQ) or lower abdominal wall .

In this case, the discovery of gallstones within the abscess cavity strongly indicated a fistulous connection between the gallbladder and abdominal wall, consistent with findings in other reports , Surgical management remains the cornerstone of treatment, focusing on drainage of the abscess, removal of gallstones, and closure of the fistula to prevent recurrence or further complications. Most cases of CCF are related to bacterial infection in the gallbladder, E.Coli is the most common microorganism , followed by coliforms and K.Pneumonia.

Diagnosis is typically confirmed using imaging modalities such as ultrasound, CT, MRI or fistulograms, with CT proving more effective inidentifying the fistula tract. Prompt surgical intervention and postoperative care are crucial for favorable outcomes . Further studies are needed to better understand the pathophysiology, diagnosis, and optimal management of this rare condition.