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A Unique Case of Acute Pancreatitis: A Mystery Unveiled

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A B S T R A C T

Acute pancreatitis is a well-known gastrointestinal condition characterized by sudden inflammation of the pancreas. While it often presents with typical symptoms, some cases can be enigmatic, challenging clinicians to unravel the underlying causes. We present a unique case of acute pancreatitis in a 45-year-old male patient, showcasing the diagnostic odyssey and management approach. This case highlights the importance of considering rare etiologies in pancreatitis and the pivotal role of multidisciplinary care.

Keywords: Acute Pancreatitis; Male Patient; Peshawar

Introduction

Acute pancreatitis, characterized by the sudden inflammation of the pancreas, remains a well-documented and frequently encountered gastrointestinal condition in clinical practice.[1,2] Its pathogenesis is most commonly attributed to the presence of gallstones or chronic alcohol abuse, leading to the activation of pancreatic enzymes within the pancreatic parenchyma, with subsequent autodigestion and local inflammation. While these etiological factors account for the majority of cases, acute pancreatitis can be a complex and multifaceted disease, often presenting clinicians with diagnostic and therapeutic conundrums.[3,4]

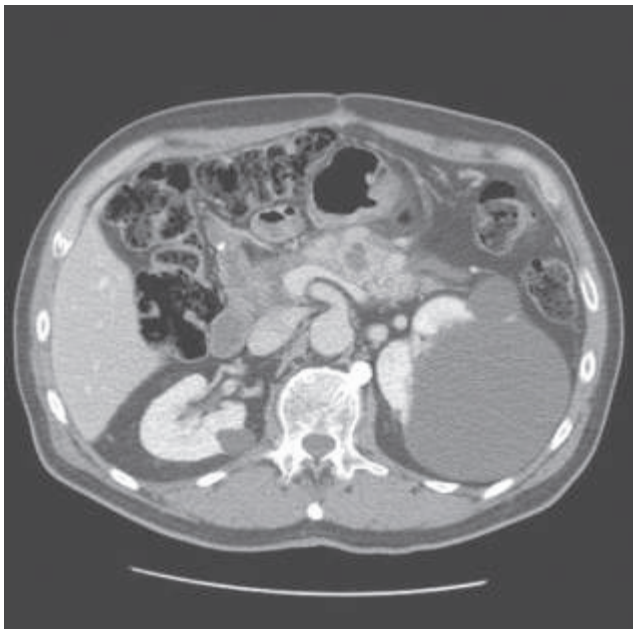
In this case report, we delve into a compelling clinical scenario—a case of acute pancreatitis that defied the conventional understanding of the condition. Our patient, a 45-year-old male, presented with sudden and severe abdominal pain radiating to the back, a classic hallmark of acute pancreatitis. However, what set this case apart was the absence of traditional risk factors, such as gallstones or a history of excessive alcohol consumption. This intriguing presentation prompted a thorough exploration of less common etiologies and diagnostic investigations that would ultimately unveil an unexpected mystery.

Acute pancreatitis, regardless of its cause, manifests with a range of clinical symptoms and signs, often posing a diagnostic challenge. It is essential for healthcare providers to not only recognize typical presentations but also consider the possibility of uncommon etiologies, particularly when the patient's clinical profile deviates from the expected norm. This case serves as a stark reminder of the importance of maintaining a broad differential diagnosis, even in the absence of traditional risk factors, to ensure that patients receive timely and appropriate care.

Our journey into this unique case begins with a detailed exploration of the patient's clinical presentation, including the nature of his symptoms and physical examination findings. We then delve into the diagnostic odyssey that ensued—a journey marked by various investigations, from laboratory tests to imaging studies and specialized procedures. The twists and turns in the diagnostic process ultimately led us to an unexpected revelation—a previously undiagnosed anatomical variant known as pancreas divisum, which played a pivotal role in the development of acute pancreatitis in our patient.

This case report not only highlights the fascinating clinical puzzle presented by atypical acute pancreatitis but also underscores the significance of a comprehensive diagnostic approach. It emphasizes the need for clinicians to remain vigilant, continually expanding their diagnostic horizons to unveil mysteries that may defy initial expectations. Furthermore, it exemplifies the critical role of collaboration among healthcare professionals in arriving at a conclusive diagnosis and implementing effective management strategies.

Case Presentation: A 45-year-old male presented to our emergency department with severe abdominal pain of sudden onset, radiating to the back. He reported a history of consuming a moderate amount of alcohol occasionally but denied any recent binge drinking or gallstone-related symptoms. Physical examination revealed tenderness in the epigastric region with guarding. Initial laboratory investigations demonstrated elevated serum amylase and lipase levels, confirming the diagnosis of acute pancreatitis.



Diagnostic Dilemma: The absence of typical risk factors raised suspicion for an underlying uncommon cause of pancreatitis. Additional investigations, including abdominal imaging, autoimmune serology, and genetic testing, were pursued. Abdominal CT scan revealed a dilated main pancreatic duct with evidence of chronic pancreatitis. Autoimmune markers were negative, and genetic testing ruled out hereditary forms of pancreatitis. The mystery deepened.

Discovery and Management: Further exploration led to the discovery of a previously undiagnosed pancreas divisum—an anatomical anomaly where the dorsal and ventral pancreatic ducts fail to fuse. This rare condition, often asymptomatic, predisposed the patient to recurrent acute pancreatitis episodes. Endoscopic retrograde cholangiopancreatography (ERCP) with minor papilla sphincterotomy was performed to alleviate ductal

obstruction.

Outcome: Following the procedure, the patient's symptoms gradually resolved, and serial imaging showed improvement in pancreatic duct dilation. He was educated on dietary modifications and referred for genetic counseling to assess familial implications. Regular follow-ups ensured his condition remained stable.

Discussion

This casThis case underscores the importance of considering uncommon etiologies in acute pancreatitis, particularly in the absence of traditional risk factors. Pancreas divisum is a rare anatomical variant that can go undetected until symptomatic events occur. Early diagnosis through detailed imaging and endoscopic interventions can offer effective management strategies, preventing recurrent episodes and complications.[5,6]

Acute pancreatitis is a well-recognized gastrointestinal condition, commonly associated with gallstones and alcohol consumption.[7] However, this case underscores the critical importance of considering uncommon etiologies, especially when traditional risk factors are absent. In our patient, the presence of pancreas divisum, a rare anatomical variant, played a pivotal role in the development of acute pancreatitis. Pancreas divisum is characterized by the non-fusion of the dorsal and ventral pancreatic ducts during embryogenesis, resulting in separate drainage pathways. It is often asymptomatic and can go undetected until symptomatic events occur, as in our case.

The diagnostic challenge in our patient revolved around the absence of typical risk factors and the need to explore less common causes of acute pancreatitis. This illustrates the importance of a comprehensive diagnostic approach, especially in cases that do not fit the conventional profile. When faced with such situations, clinicians must consider a broader differential diagnosis and employ a range of investigative tools to arrive at an accurate assessment.

Imaging played a crucial role in our case. Abdominal computed tomography (CT) scanning revealed a dilated main pancreatic duct with findings suggestive of chronic pancreatitis.[8] While pancreas divisum itself does not necessarily lead to acute pancreatitis, it can serve as a predisposing factor by causing obstruction of the minor papilla, hindering pancreatic juice drainage. In our patient, this obstruction was a contributing factor to recurrent acute pancreatitis episodes.

The successful management of this case hinged on early diagnosis through detailed imaging and the application of endoscopic interventions. Endoscopic retrograde cholangiopancreatography (ERCP) with minor papilla sphincterotomy relieved the ductal obstruction, allowing the patient's symptoms to gradually resolve. This highlights the therapeutic potential of such interventions in patients with pancreas divisum, preventing recurrent episodes and complications.

Furthermore, our case emphasizes the importance of patient education and long-term follow-up. The patient was educated on dietary modifications and referred for genetic counseling to assess familial implications. Regular follow-up visits ensured that his condition remained stable, underscoring the need for ongoing care and surveillance.

Conclusion

Acute pancreatitis, though often linked to well-established causes, can occasionally present with puzzling features. This case illustrates the significance of a comprehensive diagnostic approach in unveiling rare etiologies, ensuring appropriate management, and improving patient outcomes. It emphasizes the role of multidisciplinary collaboration in addressing complex cases of acute pancreatitis.

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