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ATYPICAL PRESENTATION OF ACUTE PANCREATITIS IN AN IMMUNOCOMPETENT PATIENT: A CASE REPORT AND COMPREHENSIVE REVIEW OF THE LITERATURE.

Medicine

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ABSTRACT

Introduction: Acute pancreatitis is a common inflammatory disorder of the pancreas, typically presenting with sudden upper abdominal pain, nausea, and vomiting. Despite its well-documented classic presentation, atypical manifestations can lead to initial misdiagnosis and complicate the clinical course. **Case Presentation:** We present a case of 48-year-old male presented to the Medicine department of DRPGMC Tanda, H.P, in March 2025, with complaints of left flank pain and fever. He was initially diagnosed as a case of pyelonephritis because there was typical history s/o acute pyelonephritis. Despite treatment with intravenous fluids and antibiotics his symptoms persisted and worsened. Laboratory tests revealed an elevated white blood cell count ($23x10^3/\mu L$), normal pH and electrolytes, and a CRP of 8 mg/dL. An emergency ultrasound of the abdomen revealed that the pancreas, normal in size and echotexture with mild ascites. The left kidney appeared enlarged with perinephric collection, while the remainder of the abdominal contents was obscured by bowel gas. Ascitic tap was done under aseptic condition for analysis showing significant raised lipase and amylase. Serum lipase sent retrospectively which was significantly elevated (>400 U/L). CECT abdomen performed, revealed acute interstitial pancreatitis with focal changes in the body and tail of the pancreas and minimal pancreatic fluid. The patient was managed conservatively and discharged. While there are cases of atypical presentation of acute pancreatitis in literature, we believe more research is needed to increase awareness in considering the possibility of acute pancreatitis in patients with unresolving and unexplained symptomatology of abdomen. **Discussion:** This case illustrates an atypical presentation of acute pancreatitis with flank pain and fever, emphasizing the need for high clinical suspicion and thorough diagnostic evaluation. Acute pancreatitis can present with a wide range of symptoms, complicating timely diagnosis and management. While elevated serum lipase and characteristic imaging findings are diagnostic, atypical presentations may delay appropriate treatment. **Conclusion:** This case underscores the heterogeneous clinical manifestations of acute pancreatitis and the imperative of contemplating this diagnosis even in the absence of conventional symptoms. Heightened awareness and comprehensive research are essential to elucidate the complete spectrum of atypical presentations, thereby facilitating prompt and accurate diagnosis and management.

KEYWORDS

Acute pancreatitis, lipase, amylase, pain abdomen.

INTRODUCTION

Acute pancreatitis, an inflammatory disorder of the pancreas, is one of the leading causes of abdominal pain contributing to significant mortality and morbidity worldwide [1]. It typically presents as a sudden intense pain in the upper abdomen (80- 85%), radiating often to the back, accompanied by nausea and vomiting (40%) [1]. Fever, breathlessness, irritability, impaired consciousness and abdominal distension are often, but not always, associated with the typical presentation. Because of its similarity in clinical presentation to numerous other acute illnesses, diagnosis is made if 2 of the following 3 criteria are positive: (1) Typical abdominal pain, (2) Serum amylase/ lipase ≥3 upper limit of normal, and (3) Characteristic imaging findings [2]. Despite the critical nature of the illness and heavy disease burden, there is no specific drug therapy that can change the course of acute pancreatitis, and management depends on timely recognition of the disease and its complications to prevent both short-term and long-term morbidity [1].Literature indicates that while the classic presentation is well-documented, cases with symptoms such as isolated back pain, left-sided flank pain [3], and even scrotal pain [4] and inguinal swelling [5]. can occur. These atypical manifestations often lead to initial misdiagnosis, ranging from renal colic to myocardial infarction, thus complicating the clinical course.

Case Presentation:

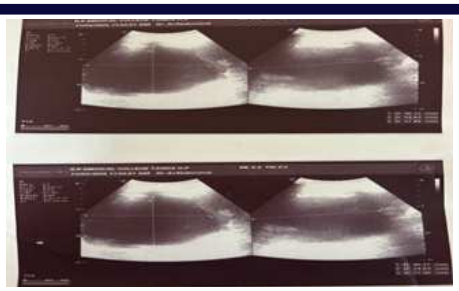
A 48-year-old male presented to the Medicine department of DRPGMC Tanda, H.P in March 2025. The patient reported a complaint of insidious-onset, persistent pain localized to the left side of the abdomen, specifically in the left lumbar region. The discomfort was gradually progressive, moderate in intensity, and radiated to the back, without any identifiable aggravating or alleviating factors. He had a history of fever persisting for the past 10-12 days, documented to reach 102°F intermittently, accompanied by chills and rigors, without any diurnal variations. There was no history of burning micturition, vomiting, diarrhoea, jaundice, constipation, cough, or shortness of breath. Furthermore, he denied any recent travel. The patient has no known history of diabetes mellitus or hypertension. On general physical examination, vital signs were as follows: blood pressure 110/70 mmHg, pulse 98 beats per minute, respiratory rate 14 breaths per minute, oxygen saturation 97% on room air, and random blood sugar measured at 168 mg/dl. Upon examination of the abdomen, it was noted to be soft with tenderness in the left lumbar region and renal angle tenderness. No organomegaly was observed, and bowel sounds were normal. Cardiovascular, respiratory, and neurological systems were within normal limits. Based on the acute febrile illness accompanied by pain in the left lumbar region, acute pyelonephritis was initially considered. An emergency ultrasound of the abdomen revealed that the pancreas, specifically the visualized head and body regions, appeared normal in size and echotexture.

The left kidney appeared enlarged with perinephric collection, while the remainder of the abdominal contents was obscured by bowel gas. Laboratory assessments indicated an elevated white blood cell count ($12x10^3/\mu L$), platelet counts $456x10^3/\mu L$, normal pH and electrolyte levels, and a C-reactive protein (CRP) measurement of 8 mg/dL, with liver function tests (LFT) and prothrombin time/international normalized ratio (PT/INR) remaining within normal limits.

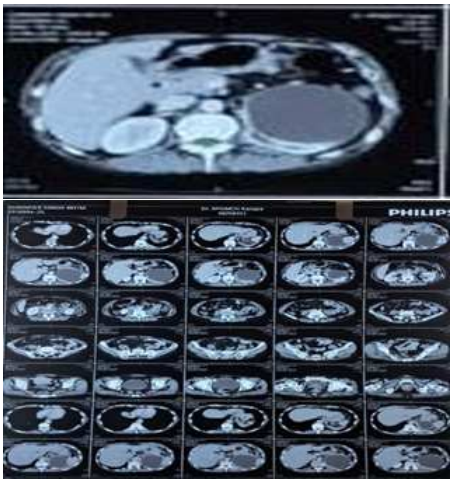
A routine urinalysis and microscopic examination yielded unremarkable results. The diagnosis of an acute perinephric abscess was established based on the aforementioned clinical history, findings, and ultrasound report.

The patient was commenced on antibiotic therapy with intravenous piperacillin and tazobactam, supplemented with oral paracetamol as needed. All pertinent investigations, including urine and blood cultures, were conducted. On day three of injectable antibiotics, the patient was febrile, temperature reaching 102°F, and persistent abdominal pain localized to the left lumbar region; urine culture results were sterile. Repeat ultrasound was done which revealed a well-defined large cystic lesion at the upper pole of the left kidney, devoid of internal echoes.

The lesion measured 9.15 x 10.5 cm and exhibited perinephric extension, with mild ascites noted. A diagnostic aspiration guided by ultrasound was performed, and the analysis of the ascitic fluid revealed serum amylase levels at 57,532 and lipase levels at 33,450, leading to the diagnosis of acute pancreatitis.



Well defined large cystic lesion seen at the upper pole of the left kidney. The absence of internal echoes has been confirmed. Measurement recorded at 9.15*10.5 cm, with perinephric extension. Mild ascites detected.



The body and tail of the pancreas demonstrate mild hypertrophy and edema, accompanied by a peripancreatic fluid collection and fat stranding, as well as thickening of the left pararenal fascia. These findings are suggestive of acute to subacute pancreatitis. A small localized fluid collection is evident in the left hypochondrium and the left perinephric region.

DISCUSSION:-

Acute pancreatitis is a well-recognized inflammatory disorder of the pancreas, most commonly presenting with sudden onset of severe epigastric pain, nausea, and vomiting. occasionally radiating to the back. Additional commonly reported symptoms include low-grade fever, abdominal distension, and dyspnea [6]. However, atypical manifestations pose a significant diagnostic challenge and can lead to delays in appropriate treatment. This case illustrates an unusual presentation of acute pancreatitis, initially misdiagnosed as pyeonephritis or renal perinephric abscess due to predominant left flank pain and presence of renal tenderness, without the classic symptom of epigastric pain. The absence of traditional warning signs and the overlap with renal conditions underscores the complexity of diagnosing atypical acute pancreatitis in emergency settings. Despite advancements in healthcare access, diagnostic methodologies, and interventional techniques, acute pancreatitis continues to be a significant contributor to morbidity and mortality on a global scale [3].Alcohol consumption and gallstones are the predominant etiological factors, with additional contributors including trauma, hyperlipidemia, drugs, scorpion stings, post- (ERCP), dysfunction of the sphincter of Oddi, infections and hypercalcemia. Notable pharmacological agents associated with pancreatitis encompass statins, amiodarone, thiazides, azathioprine, valproic acid, and didanosine . A history of gallstones, alcohol consumption, and familial hyperlipidemia are critical clues in the diagnostic process, as management strategies differ significantly among cases [4]. Uncommon presentations of acute pancreatitis documented in the literature include flank pain [3], scrotal ecchymosis (Bryant sign) [4], and, in rare instances, intrathoracic collections [7] and inguinoscrotal swelling [8]. Symptomatic bradycardia, a form of viscero-visceral reaction, as the presenting complaint of acute pancreatitis has also been described, underscoring the necessity for a heightened index of suspicion in patients exhibiting unresolving or vague abdominal pain [9].Timely diagnosis and assessment of severity are paramount in mitigating morbidity and mortality. Diagnosis is established through clinical features, elevated serum lipase levels (exceeding three times the upper limit of normal), with imaging employed in cases of diagnostic uncertainty and to identify complications. Lipase is favoured over amylase due to its superior sensitivity and earlier detection capabilities. Serum triglycerides exceeding 1000 mg/dL are indicative of hyperlipidemia as the underlying cause. Instances of acute pancreatitis with normal amylase and lipase levels have been documented in the literature [5]. Misdiagnosis and delayed diagnosis of acute pancreatitis often arise due to protracted emergency department care, normal serum biochemistry and more infrequently, the absence of abdominal pain or gastrointestinal symptoms [10,]. Covino et al. reported that 2.6% of cases of atypical acute pancreatitis in a Finnish population were characterized by symptomatology in the absence of typical abdominal pain. Factors contributing to atypical acute pancreatitis include advanced age, systemic disease, and the presence of distracting illnesses. Management of acute pancreatitis encompasses fluid resuscitation, analgesia, antiemetics, and addressing the underlying cause. Cholecystectomy is warranted for pancreatitis induced by gallstones. Biliary pancreatitis without cholangitis and choledocholithiasis does not necessarily require ERCP [11]. Insulin infusion and plasmapheresis are viable treatment modalities for hypertriglyceridemia-induced pancreatitis. This case elucidates the diverse clinical presentations of acute pancreatitis and emphasizes the necessity for heightened awareness and comprehensive diagnostic evaluation, particularly in instances of nonspecific abdominal pain. Further investigation is warranted to fully comprehend the spectrum of atypical presentations of acute pancreatitis.

CONCLUSION:-

This case underscores the critical significance of considering acute pancreatitis in patients presenting with atypical manifestations, such as left flank pain and fever, which may initially mimic conditions such as pyelonephritis or renal colic. The early identification of these unconventional symptoms, coupled with the utilization of diagnostic modalities like serum lipase levels and imaging techniques, can avert misdiagnosis and facilitate prompt management, thereby potentially mitigating complications associated with delayed intervention.

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