Case Report

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Acute Abdomen Unusual Presentation of Pancreatitis: Late Rise of Serum Amylase than the CTSI of Balthazar Scoring

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Abstract

Acute abdomen is considered as the high level of suspicion and high index of clinical exposure with judicious examination and relevant investigations, none of the one can masters in all. It all requires the judicious use of the all the things together to bring out the best in the provisional diagnosis and best in the interest of the sick presented in emergency room with limited history and blood investigation carried out by practitioner at the different place. Sometimes the things will be made more complicated when the diagnosis and blood investigation doesn't matches even with the radiological investigations.

This text has been designed to explain the importance of each other with each one in the better and contained manner to help the learner and the medical students those who are wish to work in emergency field and the emergency arrives with young gentleman with acute abdomen.The case discussed here is the live example of combination and importance of the altogether.

Keywords: Acute Abdomen; Balthazar Scoring; Pancreatitis; Serum Amylase.

Introduction

Acute Abdomen Vs Acute Pancreatitis along with relevant investigations: Acute abdomen is a condition that demands urgent attention and treatment. The acute abdomen may be caused by an infection, inflammation, vascular occlusion, or obstruction. The patient will usually present with sudden onset of abdominal pain with associated nausea or vomiting. An acute abdomen refers to a sudden, severe abdominal pain. It is in many cases a medical emergency, requiring urgent and specific diagnosis. Several causes need immediate surgical treatment.

Acute pancreatitis means inflammation of the pancreas that develops quickly. The main symptom is tummy (abdominal) pain. It usually settles in a few days but sometimes it becomes severe and very serious. The most common causes of acute pancreatitis are gallstones and drinking a lot of alcohol.

The enzyme marker of pancreas determine (1) the incidence and magnitude of elevation in admission serum amylase and lipase levels in extra pancreatic etiologies of acute abdominal pain, and (2) the test most closely associated with the diagnosis of acute pancreatitis. Both serum amylase and lipase elevations were positively associated with a correct diagnosis of acute pancreatitis ($P < 0.001$) with diagnostic efficiencies of 91 and 94 percent, respectively. A close correlation between elevation of admission serum amylase and lipase

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was observed (r = 0.87) in both extra pancreatic and pancreatic disease processes. Serum amylase and lipase levels may be elevated in non pancreatic disease processes of the abdomen. Significant elevations (greater than three times upper limit of normal) in either enzyme are uncommon in these disorders. The strong correlation between elevations in the two serum enzymes in both pancreatic and extra pancreatic etiologies of abdominal pain makes them redundant measures. Serum lipase is a better test than serum amylase either to exclude or to support a diagnosis of acute pancreatitis.

The CT severity index is the sum of the scores obtained with the Balthazar score and those obtained with the evaluation of pancreatic necrosis: 0-3: mild acute pancreatitis. 4-6: moderate acute pancreatitis. 7-10: severe acute pancreatitis.

The CT severity index (CTSI) is based on findings from an enhanced CT scan to assess the severity of acute pancreatitis. The severity of acute pancreatitis CT findings has been found to correlate well with clinical indices of severity.

CT Severity Index Grading of Pancreatitis (Balthazar Score)

- A: Normal Pancreas: 0
- B: Enlargement of Pancreas: 1
- C: Inflammatory changes in Pancreas and Peripancreatic fat: 2
- D: Ill-defined single Peripancreatic fluid collection: 3
- E: Two or more poorly Defined Peripancreatic fluid Collections: 4

Pancreatic necrosis

- None: 0
- ≤30%: 2
- >30-50%: 4
- >50%: 6

Treatment and Prognosis: The CT severity index is the sum of the scores obtained with the Balthazar score and those obtained with the evaluation of pancreatic necrosis:

- 0-3: Mild acute Pancreatitis.
- 4-6: Moderate acute Pancreatitis.
- 7-10: Severe acute Pancreatitis.

Case Discussion

A young male with no comorbid earlier with sudden onset of epigastric and chest pain evaluated by cardiologist at nearest scope available for the patient found to have raised TLC 17.4 cells/Cumm3 and with normal electrocardiography, Ultrasonography found to have Hepatomegaly. The patient later refer to gastroenterologist for the evaluation.

On Arrival in Emergency the Patient Evaluated

- Afebrile
- Normotensive.
- No respiratory distress.
- Complaint of Epigastric pain abdomen.
  - ✓ On Examination – P/A Epigastric Tenderness with Rebound in Right Lower Quadrant / Mc Burney Tenderness ?? Appendicitis.
  - ✓ CVS – S1 & S2 Normal.
  - ✓ Respiratory – Bilateral Equal Air Entry.
  - ✓ Routine Investigation Sent Patient Kept NPO. Serum Amylase was Normal, Leukocytosis (15.6), Thrombocytopenia (1.23 lakh) with Other parameter normal. NCCT abdomen was planned as the USG was normal on Same day To Rule out Appendicitis as it was Strongly Suspected.
  - ✓ NCCT – S/O Acute Pancreatitis with Fat Stranding with Severity score 3.
  - ✓ Patient Kept NPO, RT Aspiration and Broad Spectrum antibiotics and Analgesic.
  - ✓ On day 2 – Serum Amylase was repeated and found to have Raised Amylase 443 IU/l with Decreased Platelet to 0.93 L.
  - ✓ Patient passed flatus with bilious fluid in aspirated bag, Soft abdomen and symptomatically improving.

Conclusion

The case Discussed here is suggestive of Acute abdomen is magic box, patient diagnosed timely saves many organs before landing into MODS. The case discussed of young man suggestive of nothing sometimes contributory in acute abdomen, A clinician dealing with acute abdomen must open window from all sided not to miss the pathology on day of arrival and successive days.

Acute pancreatitis might have normal serum amylase on Day 1 but rises subsequent, RLQ (right Lower quadrant tenderness and Raised TLC may not always be appendicitis to rule out by USG/CT Abdomen. Decision are no longer when the surgical need arrives of diagnostic laparoscopy if everything comes non significant in a persisting pain abdomen patients.

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