

# A case of Acute Pancreatitis and Acute Renal Failure Due to Aortic Dissection

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## Abstract

Acute pancreatitis (AP) The inflammatory process of the pancreas with elevated pancreatic enzymes such as amylase, lipase and abdominal pain. The most common etiologic factors are gallstones and alcohol. Among the rare causes of acute pancreatitis are vascular problems such as dissecting aortic aneurysms.

A 57-year-old male patient was admitted to the emergency room with complaints of abdominal pain, nausea and vomiting.

Laboratory is in review; Amylase: 1916 U/L, Lipase 773 U/L Urea: 187 mg /dL, WBC: 15.260 / mm<sup>3</sup>, Hemoglobin: 12.06 gr / dl, Creatinine: 3.0 mg/dl, AST: 18 IU/L, ALT: 21 IU/L, Total Billerubin: 0.58 mg/dL, LDH: 473 U/L. In patient with these findings it was thought to be acute pancreatitis. Abdominal CT revealed a dissecting aortic aneurysm, involving the celiac artery, super mesenteric artery and inferior mesenteric artery. Not every acute pancreatitis causes is stone and alcohol. One of the rare causes is aortic dissection.

**Keywords:** Dissection; Pancreatitis; Renal Failure.

## INTRODUCTION

Pancreas beige is a retro peritoneal organ. It has exo and endo functions, with an average weight of 70-100 g, consisting of four parts: caput, collum, corpus and cauda. (1,2) The head of the pancreas is fed from the superior pancreaticoduodenal artery from the gastroduodenal artery and the inferior pancreaticoduodenal artery from the superior mesenteric artery.

Blood of the corpus and tail is fed by branches from the splenic artery (1,3,4) Acute pancreatitis (AP) The inflammatory process of the pancreas with elevated pancreatic enzymes such as amylase, lipase and abdominal pain(5) According to clinical presentation, two groups are distinguished as mild (edematous) and severe (necrotizing) pancreatitis (6).

The most common etiologic factors are gallstones and alcohol (7,8) Other causes include drugs, viral infections, trauma and hypertriglyceridemia. Among the rare causes of acute pancreatitis are vascular problems such as

dissecting aortic aneurysms. We presented a rare case of acute pancreatitis and acute renal failure, which is the cause of aortic dissection in this patient.

A 57 year-old male patient was referred to our Emergency Department (ED) of Adiyaman University Training and Research Hospital, Adiyaman, Turkey in August 2016 with abdominal pain, nausea and vomiting. The abdominal CT was used to illuminate etiology. A dissecting aortic aneurysm was seen, involving the celiac artery, super mesenteric artery and inferior mesenteric artery

## CASE REPORT

A 57-year-old male patient was admitted to the emergency room with complaints of abdominal pain, nausea and vomiting. Abdominal pain complaint started from the epigastrium and spread to the left upper quadrant. Social history and family history did not feature. Physical examination; Blood Arterial Pressure: 100/60 mmHg, Heart rate was 98/min. Electrocardiography (ECG) showed a sinus rhythm. Pulse Rate: 72 pulse / min, Fever: 37.2 0

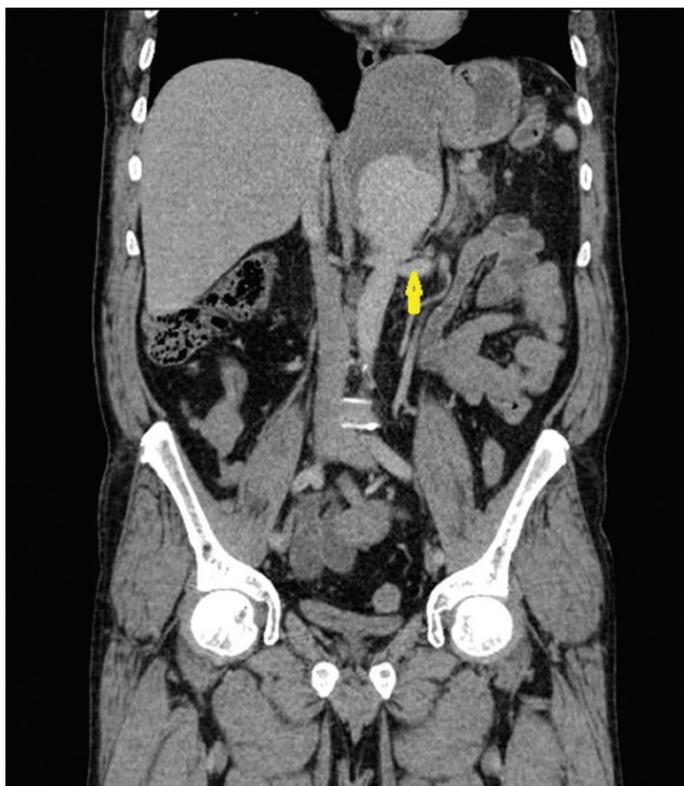
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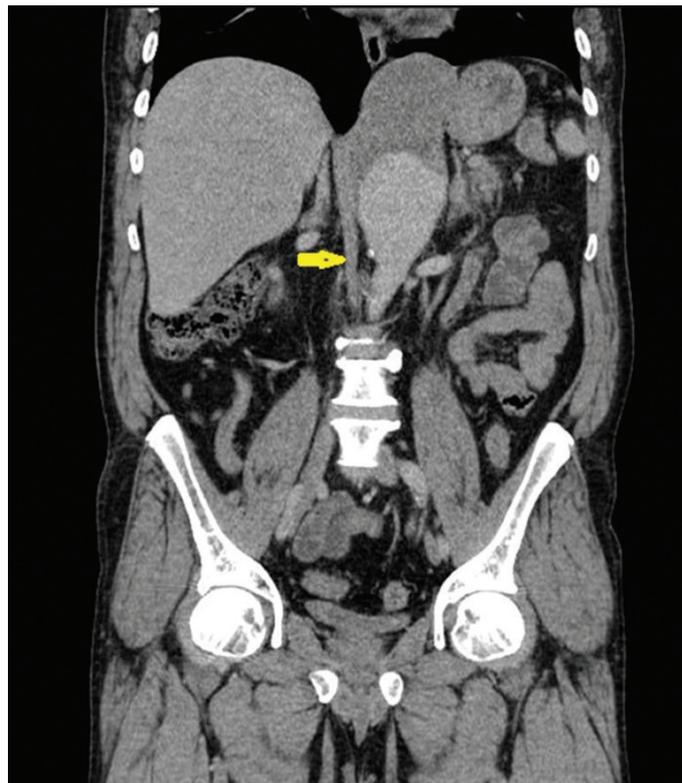
C, defensive (+), rebound (-) at the abdominal examination and epigastric tenderness in deep palpation. Laboratory is in review; Albumin: 2.7 gr/dl, Amylase: 1916 U/L, Lipase 773 U/L Urea: 187 mg /dL, WBC: 15.260 / mm<sup>3</sup>, Hemoglobin: 12.06 gr / dl, Platelet: 858.000 /DL, glucose:136 mg/dl, Creatinine: 3.0 mg/dl, AST: 18 IU/L, ALT: 21 IU/L, Total Billerubin: 0.58 mg/dL, LDH: 473 U/L. In patient with these findings it was thought to be acute pancreatitis.

There were no alcohol traces or previous gallstones in the etiology. The triglyceride level was normal. The patient had no new medication. The abdominal CT was used to illuminate the etiology. The reason for the non-contrast CT was the creatinine value of 3. In CT, free fluid is monitored in the peripancreatic area and there is significant contamination in the peripancreatic oil plans. The boulder wall and the lumen were natural. Intra and extrahepatic biliary ducts were normal. A dissecting aortic aneurysm was seen, involving the celiac artery, super mesenteric artery and inferior mesenteric artery (Figure 1). At the same time, this aneurysm extended to the renal artery (Figure 2).

It had acute kidney failure. These findings suggest that the dissected aortic aneurysm in the patient may disturb the blood supply to the pancreas and kidney, causing acute pancreatitis and acute renal failure. The patient requested urgent Cardiovascular Surgery consultation. He did not accept the operation. He was discharged for follow-up at the cardiovascular surgeon's outpatient clinic. Written consent from the patient was obtained for presenting this case report.



**Figure 1.** Aneurysmatic enlargement of the celiac and mesenteric arteries is seen T10-L1



**Figure 2.** CT image in axial plane showing a 6,4 centimeters aortic aneurysm at the renal level.

## DISCUSSIONS

Acute pancreatitis is an inflammatory condition characterized by autodigestion of the pancreatic enzymes, which begins with abdominal pain, with elevated pancreatic enzymes in the blood and urine (9). The most common etiologic factors are gallstones and alcohol (7,8) Aortic dissection is a rare cause of acute pancreatitis. In general there are many cases of acute pancreatitis following thoracic-abdominal surgeons. In Camargo et al's study, acute pancreatitis develops in 6% of patients after liver transplantation and one-third of the cases are died. Similar mortality rates are associated with pancreatitis after renal transplantation and cardiopulmonary bypass. One of the important factors in the high mortality is the delay of diagnosis and the analgesics used in the postoperative period conceal the abdominal pain. Hypotension, infections and medications are other factors that may contribute to the development of postoperative pancreatitis (10). But we have acute pancreatitis and acute renal failure due to isolated abdominal aorta dissection. This dissection was enlarged to include the celiac artery, the superior mesenteric artery, the renal artery, and the inferior mesenteric artery. Every amylase elevation with abdominal pain should not cause acute pancreatitis.

## CONCLUSION

Not every acute pancreatitis causes is Stone and alcohol. One of the rare causes is aortic dissection. This should be taken into consideration in patients with elevated amylase and abdominal pain.

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