

# A Fatal Case of Lisinopril-Induced Acute Necrotizing Pancreatitis

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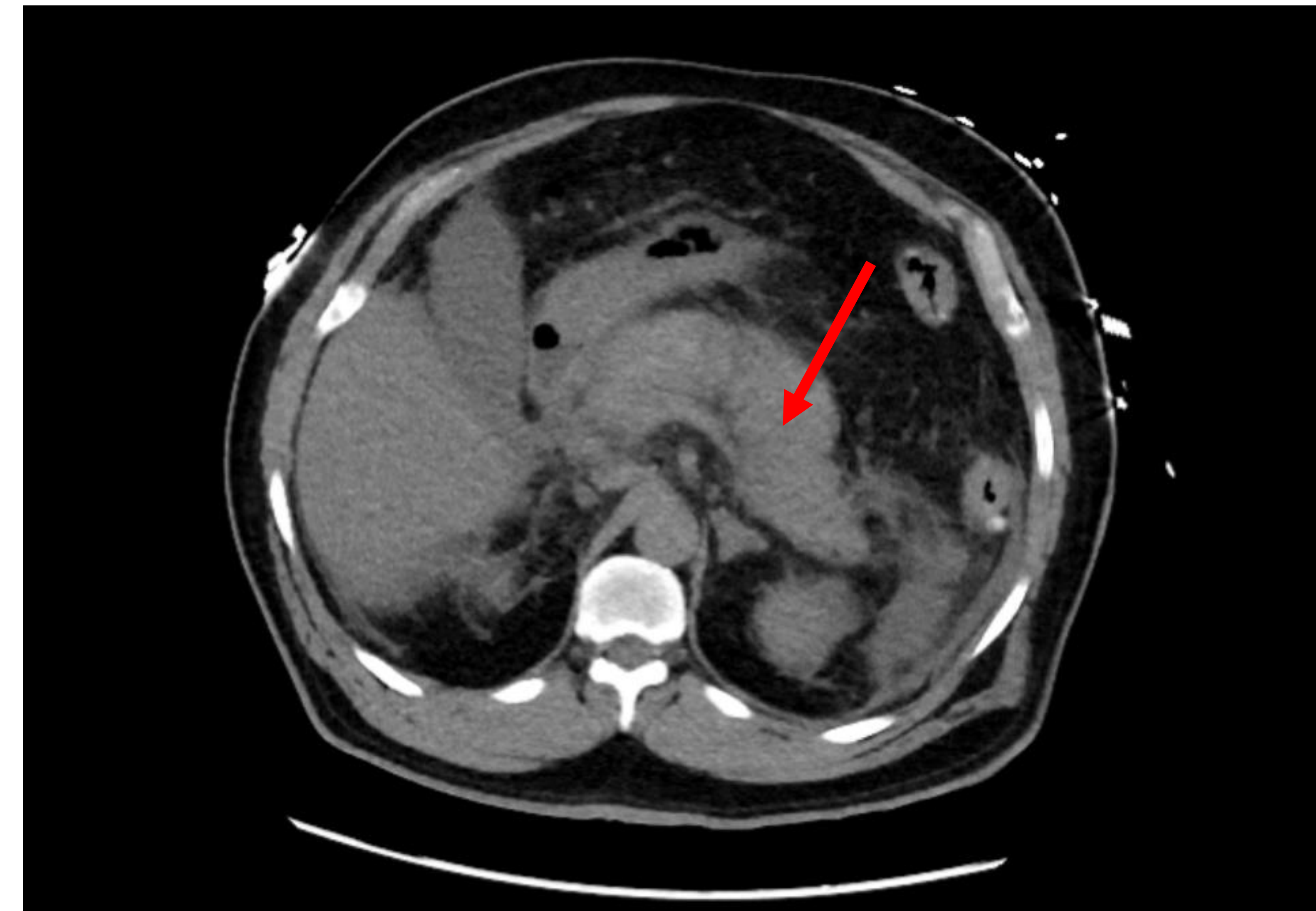
## Introduction

- Acute pancreatitis (AP) is most commonly due to gallstones, alcohol or is idiopathic. Less common causes include hypertriglyceridemia, hypercalcemia, infectious, auto-immune or drug induced.
- Angiotensin converting enzyme inhibitors have been associated with causing AP, however only two cases of lisinopril-induced necrotizing pancreatitis have been reported.
- Here, we present a case of a fatal lisinopril-induced severe necrotizing pancreatitis.

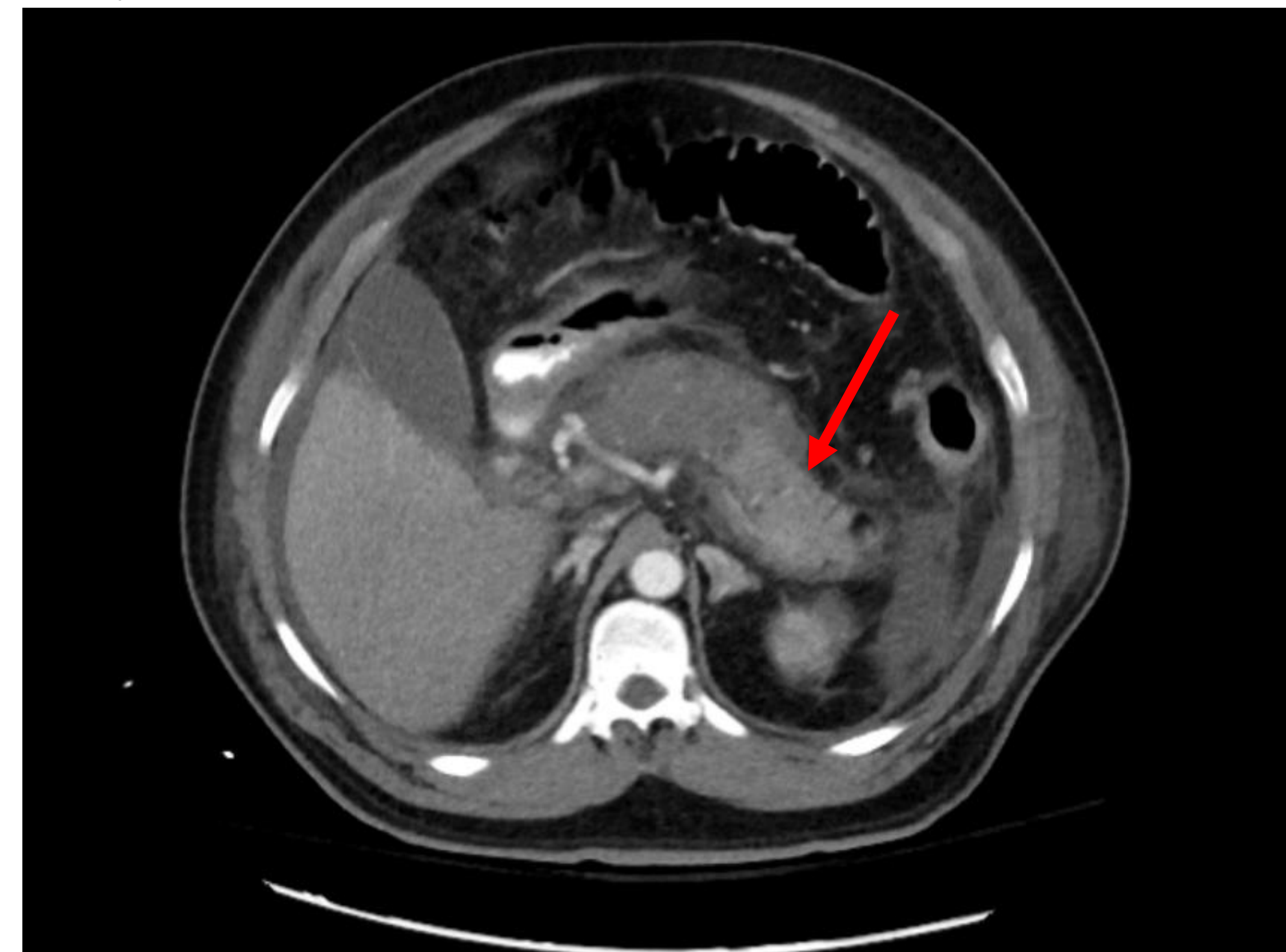
## Case Presentation

- 63-year-old male with history of hypertension treated with lisinopril for 8 months presented for one day of severe epigastric pain, nausea and vomiting.
- He denied alcohol or tobacco use, recent trauma or weight loss, or known gallstones.
- **Physical exam:** sinus tachycardia 118bpm with moderate epigastric tenderness.
- **Labs:** WBC 21,500 cells/mm<sup>3</sup>, hematocrit 61.8%, **SCr 3.55mg/dL**, Ca 8.7mg/DL, AST 74U/L, ALT 136 U/L, T Bili 1.1mg/dL, **lactic acid 9.2mmol/L**, **lipase >15,000U/L**, **triglycerides 217mg/dL**, ethanol <3.
- Right upper quadrant ultrasound: negative.
- **CT scan on hospital day 1:** edematous pancreas with free fluid. (**Figure 1**) .
- His condition quickly worsened requiring intubation with mechanical ventilation, pressor support and broad-spectrum antibiotics.

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**Figure 1:** CT scan of the abdomen on admission showing edematous pancreas (red arrow).



**Figure 2:** CT scan of the abdomen on hospital day 3 showing edematous pancreas with areas of necrosis around the head, body and tail of the pancreas. (red arrow).

## Case Presentation Cont.

- Repeat **CT scan on hospital day 3** showed pancreatic necrosis of the uncinate process, head and proximal 1/3 of the body. (**Figure 2**).
- Extensive workup to determine etiology of the pancreatitis was negative including ANA, c-ANCA, p-ANCA, anti-mitochondrial Ab, C3, C4, CH50, IgG4, mycoplasma IgM, HIV, CMV, Coxsackie, COVID-19, ceruloplasmin, alpha-1 antitrypsin, and ferritin.
- Unfortunately, despite maximal ventilatory and pressor support, the patient passed away on hospital day 14.

## Conclusion

- It is difficult to determine if a drug is responsible, however we can use the Naranjo system to grade the possible association. For our patient his score was 5 indicating possible association.
- Only 2 other reported cases of necrotizing pancreatitis have been reported, however this is the first case that proved to be fatal.
- We effectively ruled out all other described causes of AP and were left with lisinopril as the potential offending agent.
- Due to its rarity, it is important to provide more cases to the growing literature to add to the available knowledge for further research.

## References

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