

Introduction

- Chylous Ascites (CA) occurs from obstruction or perforation of the peritoneal and retroperitoneal lymphatic system.
- Common etiologies in adults include abdominal malignancy, cirrhosis, infections and trauma.
- Rarely, CA may be a consequence of necrotizing pancreatitis (NP).
- We report a case series of five NP patients who developed CA as a late sequelae.

Case Description

- Five patients, (males-2, mean age- 65 years) hospitalized at our institution with NP developed CA after a median 85 (IQR 80-169) days from NP diagnosis (Table 1).
- CA clinical presentation varied as per Table 2.
- All cases required endoscopic treatment for NP and two needed percutaneous and surgical intervention a median 55 days prior to CA development.
- No patients were diagnosed with malignancy.
- One patient had portal hypertension.
- All received a low-fat diet with medium chain triglyceride (MCT) supplementation. One was administered octreotide and one was placed on total parental nutrition (TPN).
- Two cases demonstrated persistent CA at three month follow up which resolved by six months.
- Three patients died over the next year due to complications of sepsis (n=2) and respiratory failure (n=1).
- One patient is still being followed.

Parameter	Patient A	Patient B	Patient C	Patient D	Patient E
Gender	Male	Male	Female	Female	Female
Age, years	64	39	43	66	68
Etiology of NP	Idiopathic	HTG	HTG	Biliary	Biliary
NP Intervention	E	E	E,P,S	E,P,S	E
Reason for intervention	Infected WON	Infected WON	Infected WON	Infected WON	Infected WON, GOO
Days from NP to CA	169	80	1,757	15	85
Days from intervention to CA	143	55	108	14	17
Positive lymphoscintigraphy	No	No	No	No	No
Ascites TG, mg/dL (IQR)	714	835	463	750	458
SBP	No	No	Yes	Yes	Yes
Malignancy	No	No	No	No	No
SAAG >1.1	No	Yes	No	No	No
MCT supplement	Yes	Yes	Yes	Yes	Yes
Octreotide	No	No	No	No	Yes
TPN	No	No	No	Yes	No
CA >3 months	n/a	Yes	No	No	Yes
Duration of CA, days	n/a	180	7	7	180
Cause of death	None	Sepsis	Sepsis	Sepsis, respiratory failure	None

Table 1. Characteristics of five patients with CA following NP. HTG, hypertriglyceridemia; E, endoscopic; P, percutaneous; S, surgical; GOO, gastric outlet obstruction; WON, walled off necrosis; TG, triglyceride; SBP, secondary bacterial peritonitis; SAAG, serum albumin-ascites gradient.

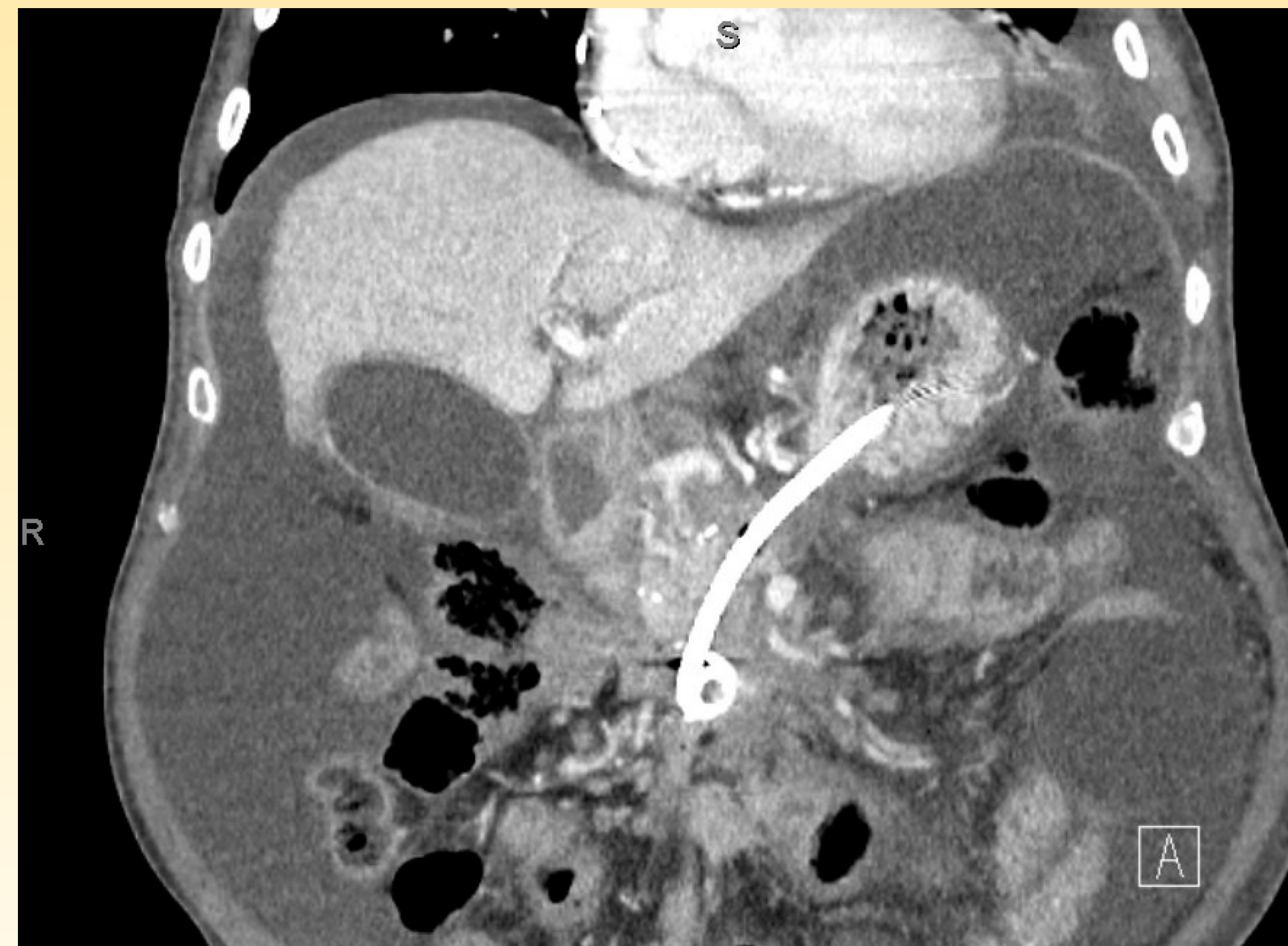


Figure 1. A) Patient A - CT scan with a large amount of chylous ascites (arrow), pancreatic WON with stent placed.

Patient	A	B	C	D	E
Presenting symptoms	Two weeks of weight gain and painless abdominal distention after endoscopic treatment for WON.	Fever, ascites and abdominal pain with suppurative cholecystitis following endoscopic treatment for WON.	Painful abdominal distention with SBP after drain removal for retroperitoneal abscess which later developed into CA.	Persistent abdominal distention after abdominal washout for NP and drain placement for loculated pancreatic ascites.	Fevers and abdominal fullness with E.Coli bacteremia and ongoing WON following endoscopic NP treatment 3 months prior.
SIRS/Sepsis	No	Yes	Yes	Yes	Yes

Table 2. Presentations of CA from five patients following NP. SIRS, systemic inflammatory response syndrome. SBP, secondary bacterial peritonitis.

Discussion

- Chylous Ascites is a rare complication of NP with an unknown natural history.
- Treatments include a low-fat diet, MCT supplementation, octreotide, TPN and surgical intervention for failed conservative management.
- Common among our patients was the presence of SIRS/Sepsis, infected walled off necrosis (WON), and a need for mechanical intervention.
- All patients had resolution of CA by six months with conservative treatment.
- Sixty percent of these patients died by one year follow up from complications indirectly related to CA.

Conclusions

- Chylous Ascites from NP has sparsely been reported in the literature.**
- Inflammatory disruption of the peritoneal/retroperitoneal lymphatic system, systemic infection and need for mechanical intervention may collectively contribute to its development in this population.**
- Conservative treatment can successfully manage CA though may take up to six months to achieve resolution.**
- Providers should be aware of this potentially fatal complication.**