

Background

- Hemosuccus pancreaticus describes hemorrhage from the ampulla of Vater via the pancreatic duct, and is an infrequent but potentially life-threatening cause of upper gastrointestinal (GI) bleeding
- It is also known as pseudohemobilia or hemowirsungia, and is most often associated with chronic pancreatitis, pancreatic tumors, or pancreatic pseudocysts
- Diagnosis can be elusive and treatment challenging
- Here we report a case of hemosuccus pancreaticus in the setting of acute pancreatitis identified on upper endoscopy (EGD) and endoscopic retrograde cholangiopancreatography (ERCP), treated successfully with gastroduodenal artery (GDA) embolization by interventional radiology

Case Description

52-year-old female with PMHx of compensated alcoholic cirrhosis and cholecystitis status post cholecystectomy presented with epigastric pain, coffee ground emesis, bright red blood per rectum, fatigue and lightheadedness

Initial presentation:

Vital signs were stable

Labs: hemoglobin (Hb) 5.9 g/dL, platelets 92 x10⁹/L, lactate 4 mEq/L, lipase 1570 IU/L, total bilirubin 10.4 mg/dL, direct bilirubin 3.6 mg/dL, aspartate aminotransferase (AST) 106 IU/L, alanine aminotransaminase (ALT) 45 IU/L, and INR 2.3

Exam: abdomen tender to palpation, rectal exam notable for bright red blood

Imaging and interventions:

Computed tomography (CT) of the abdomen and pelvis showed acute pancreatitis with peripancreatic inflammatory changes. After initial resuscitation, EGD was performed, revealing active bleeding at the ampulla but no blood in the stomach.

Immediate ERCP identified distinct biliary and pancreatic duct orifices within the ampulla (Figure 1) with blood oozing from the pancreatic duct (Figure 2), consistent with hemosuccus pancreaticus; it also revealed an increased rate of hemorrhage, as bright red blood was now pooled in the stomach and duodenum.

Patient underwent transcatheter angiography with empiric coil embolization of the GDA, achieving hemostasis (Figures 3 and 4).

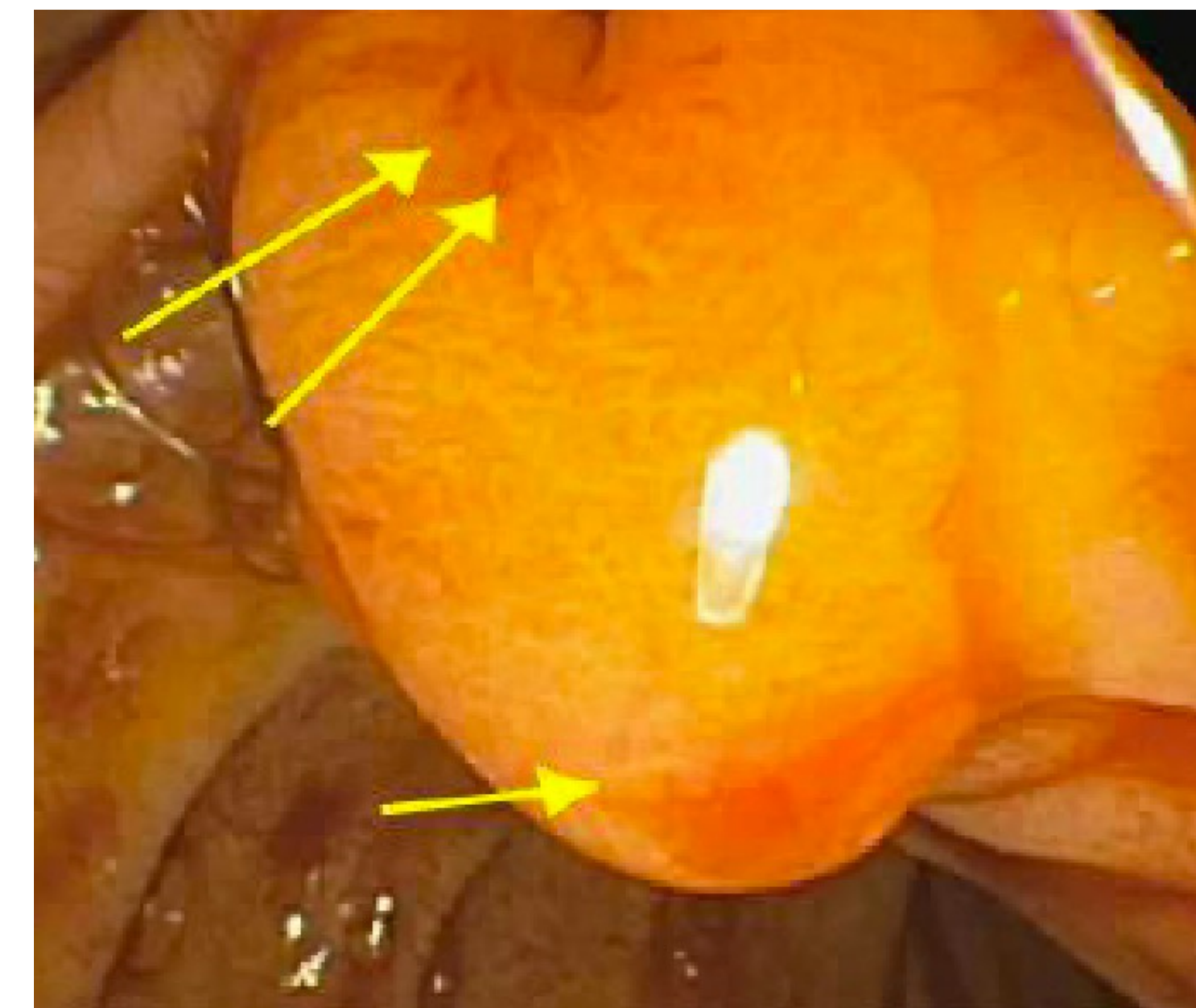


Figure 1: Biliary orifice (double arrow), pancreatic orifice (single arrow) without active bleeding, seen on ERCP

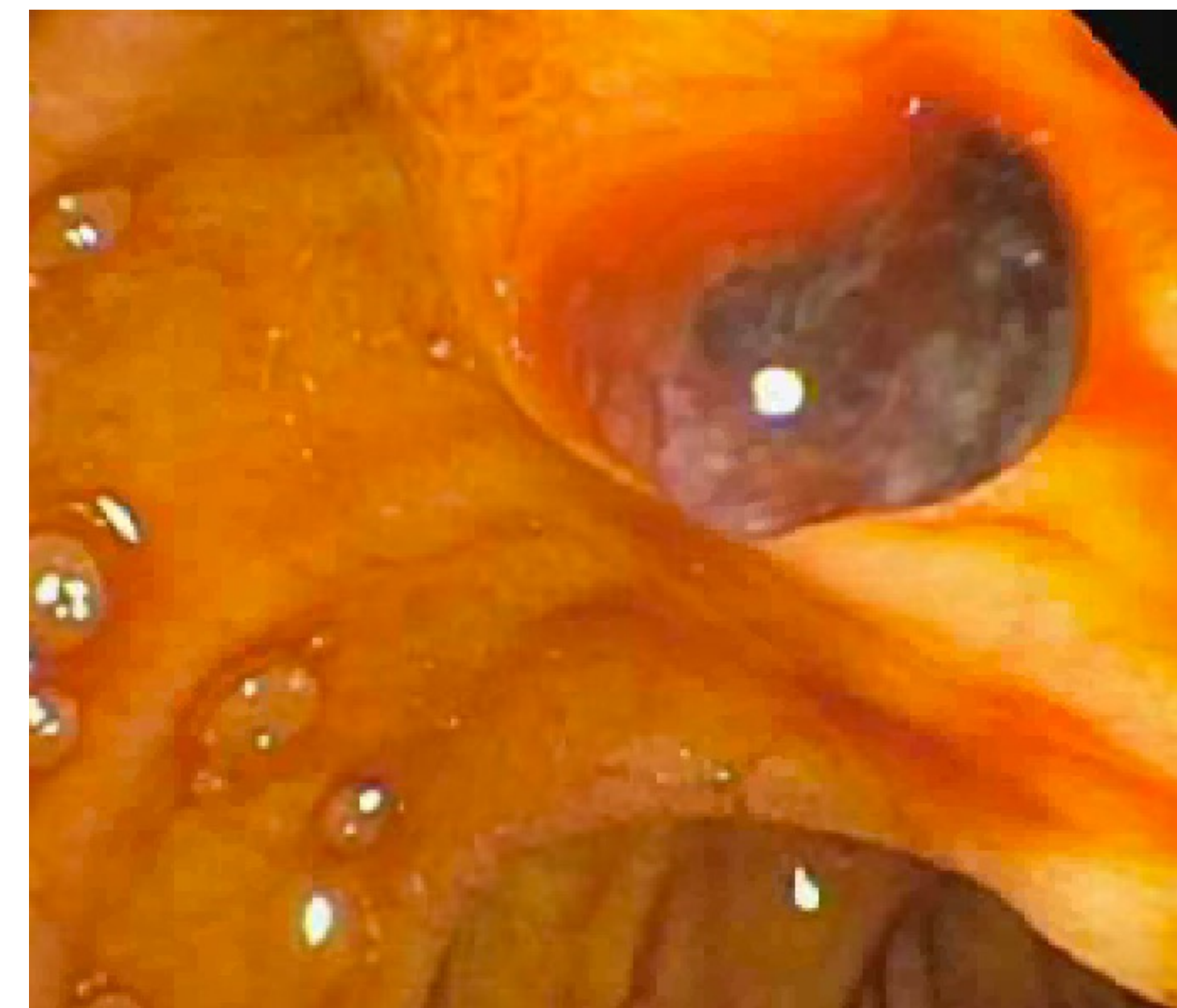


Figure 2: Blood clot at the ampulla, seen on ERCP

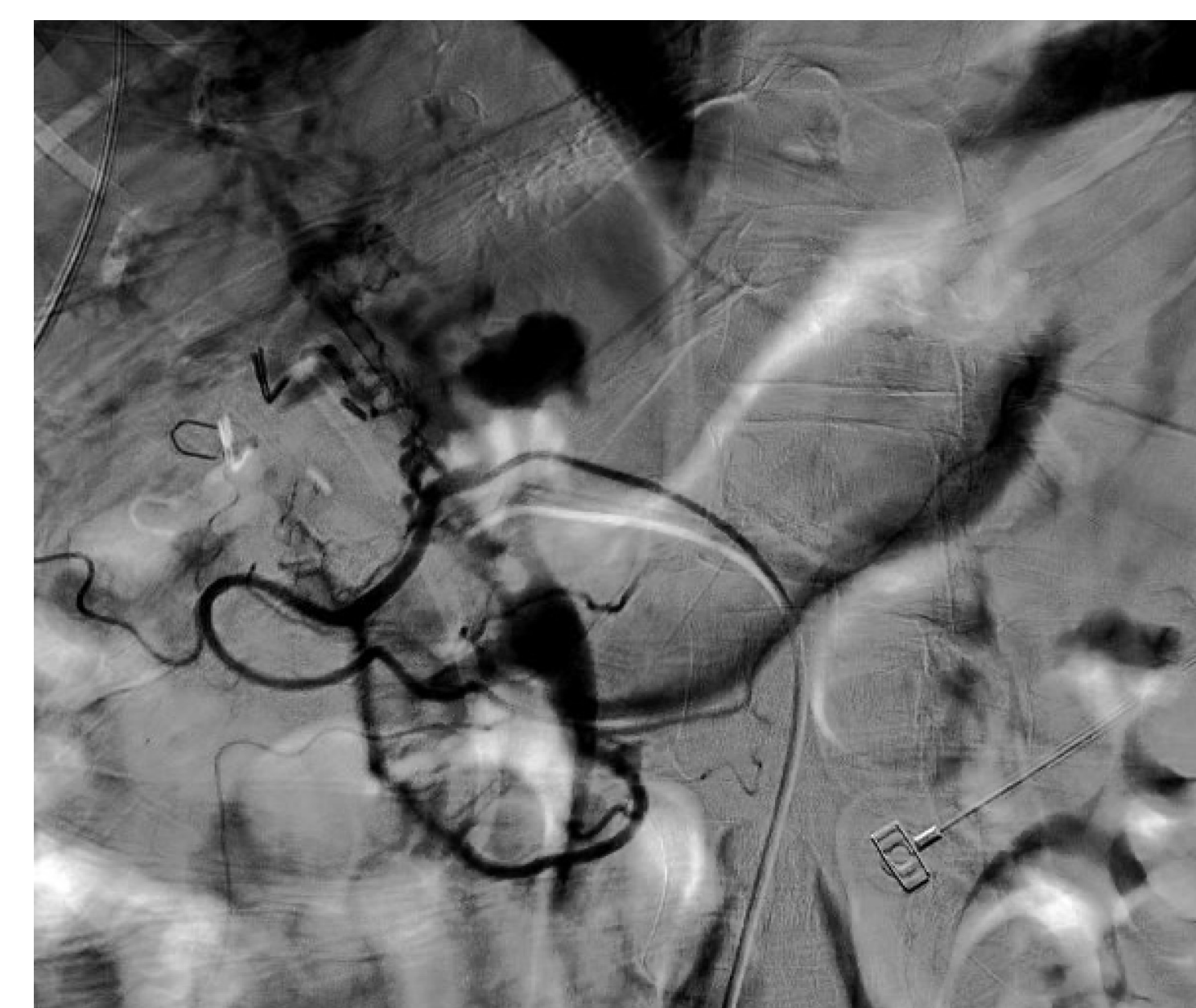


Figure 3: IR transcatheter embolization of the omental branch of the GDA



Figure 4: Completion of angiography showing catheterized common hepatic artery and no evidence of flow through the GDA. No evidence of active extravasation or any significant vascular abnormality

Discussion

- Hemosuccus pancreaticus is incredibly rare, accounting for less than 1% of upper GI bleeds
- As clots form and dissolve in the pancreatic duct, subsequent elevations in intraductal pressure lead to waxing and waning abdominal pain, with accompanying hemorrhage in the form of melena, hematemesis, or hematochezia
- Primary diagnosis relies on direct visualization of the bleed
- EGD rarely reveals active bleeding from the ampulla and is only diagnostic in 30% of cases
- More sensitive diagnostic tests include abdominal CT angiography, magnetic resonance cholangiopancreatography (MRCP), or catheter-based mesenteric angiography
- Alternately, both diagnosis and treatment can be accomplished via ERCP, with the side-viewing duodenoscope allowing full assessment for pathology of the ampulla, bile duct, and pancreatic duct
- Both its intermittent symptoms and anatomic location present significant diagnostic challenges and require early consideration of hemosuccus pancreaticus in the evaluation of obscure GI bleeds
- Though it can be evasive, early diagnosis is imperative given the often rapid progression of these bleeds, as displayed in our patient here, and the up to 90% mortality in untreated cases

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