Cystic Artery Pseudoaneurysm: A rare case of upper gastrointestinal bleeding

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Introduction

Cystic artery pseudoaneurysm (CAP) is a rare complication of acute cholecystitis and cholecystectomy. We present an unusual case of upper GI bleed due to CAP.

Case Description

An elderly female presented with 1-month history of lethargy and weight loss. Initial investigations showed severe iron deficiency anemia and bland cholestasis.

Fig. 1 CT Abdomen findings: (A) A large common bile duct mass (yellow arrow)
(B) A gallbladder neck lesion (red circle) with regional lymphadenopathy.

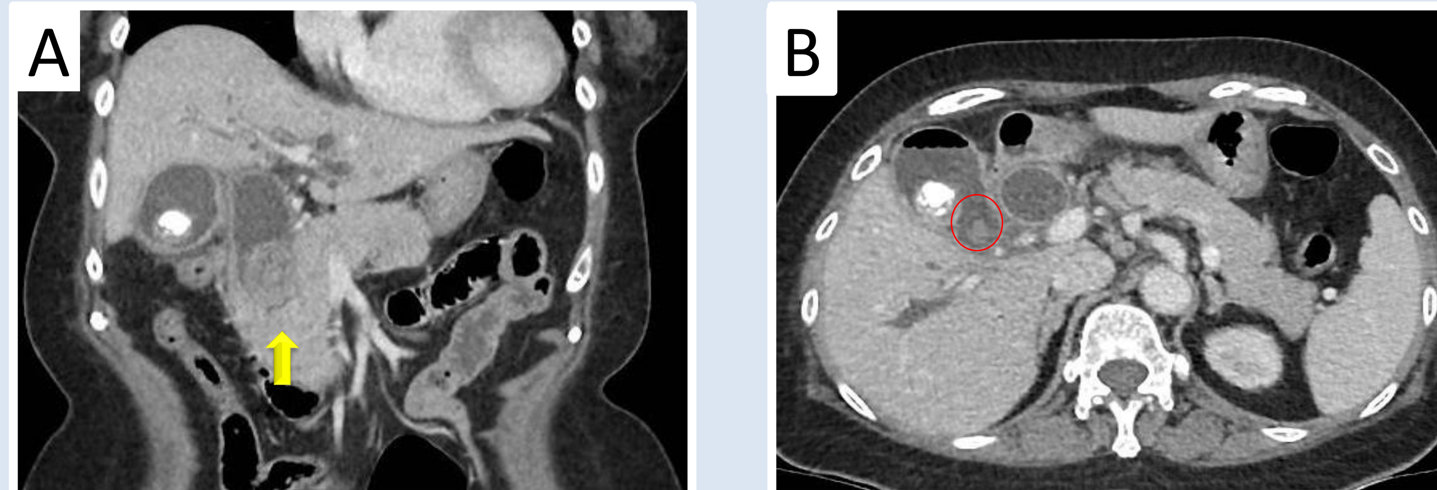
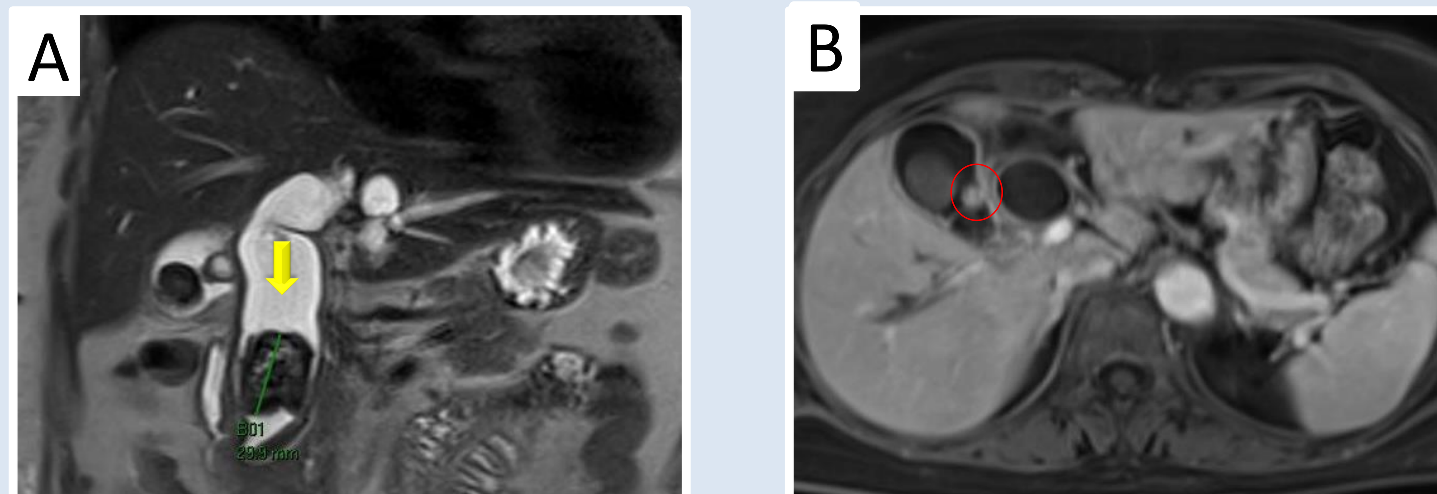


Fig 2 MRI Pancreas findings: (A) A 3cm common bile duct stone (yellow arrow)
(B) An enhancing focus at gallbladder with hemosiderin: possible CAP (red circle).



Shortly after MRI scan, the patient developed cholangitis and hematemesis. Urgent OGD and ERCP was performed.

Fig. 2. OGD findings: (A) Active bleeding from possible enteric fistula at duodenal bulb.
(B) Persistent bleeding despite endoclips placement with subsequent passage of bile from possible enteric fistula.

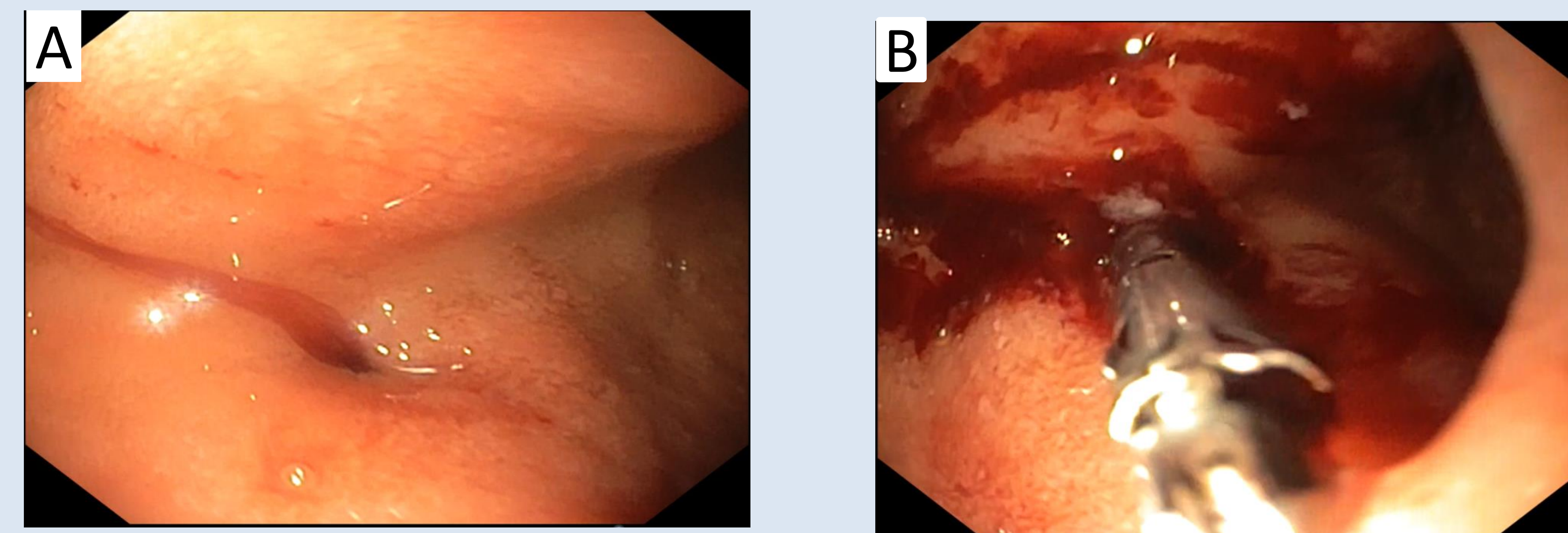
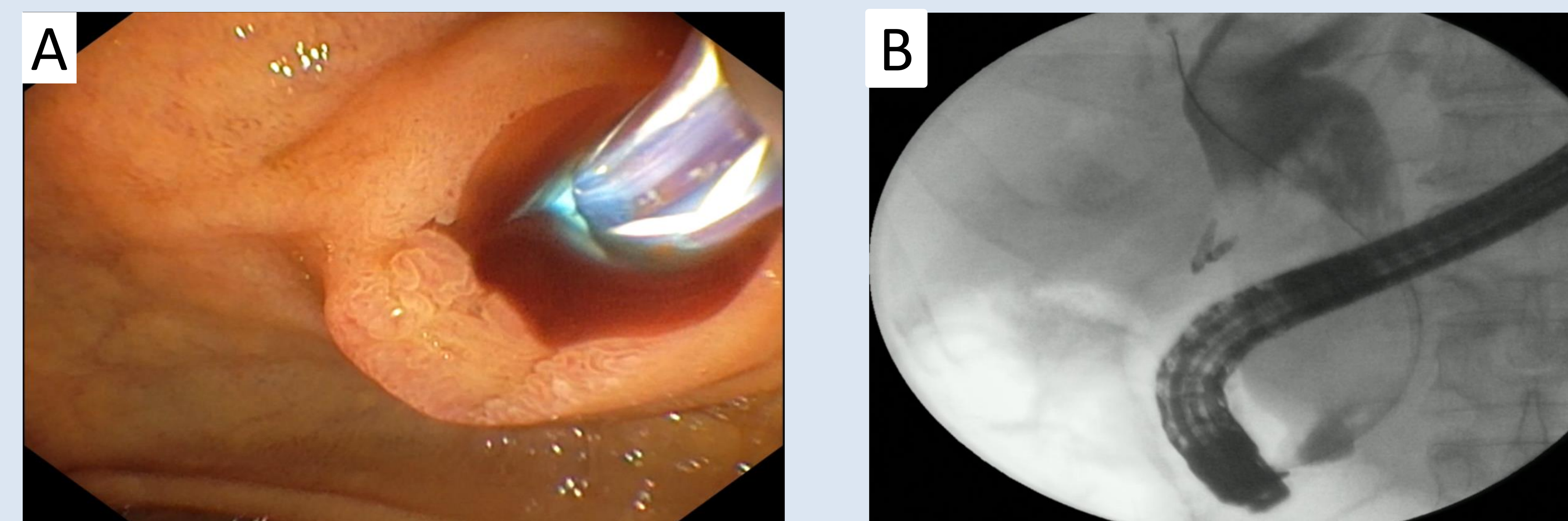


Fig. 3 ERCP findings: (A) Hemobilia unmasked on CBD cannulation with passage of pus.
(B) Endoclips at duodenal bulb seen adjacent to common bile duct but no active contrast extravasation into the duodenum.



Common bile duct was decompressed with stent insertion and she was referred to the surgeons for definitive treatment of CAP. Intra-operatively, the diagnosis of CAP was confirmed with active bleeding into the gallbladder (GB). The duodenal bulb was thinned out and adherent to the GB. There was no biliary-enteric fistula seen. Subtotal cholecystectomy, patch repair of duodenum, suturing of CAP and retrieval of common bile duct stone was done.

Discussion

This is a rare case of upper GI bleed due to CAP. The clinical presentation of CAP include right upper quadrant abdominal pain, upper GI bleed and abnormal liver enzymes. It is diagnosed on arterial phase of CT scan, angiography, MRI or intra-operatively. CAP requires definitive treatment with surgery or angioembolization.

This is a challenging case with delayed diagnosis due to lack of typical presentation of CAP. The initial CT was performed without arterial phase due to low suspicion of CAP. Endoscopic findings raises the possibility of choledocho-duodenal fistula but this was excluded during surgery. The final diagnosis is acute calculous cholecystitis complicated by CAP with direct pressure on D1 leading to upper GI bleed. This is the first case report of CAP with direct compression into duodenum leading to upper GI bleed.

Conclusion

In patients who presents with symptomatic gallstone disease and upper GI bleed, there should be a high index of suspicion for CAP. This will guide appropriate choice of imaging, early diagnosis and definitive therapy.

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