

Gastric outlet obstruction caused by duodenal intramural pseudocyst

Surinder Singh Rana, Deepak Kumar Bhasin, Chalapathi Rao, Kartar Singh

Post Graduate Institute of Medical Education and Research (PGIMER), India

Pancreatic pseudocysts may occur at atypical locations like mediastinum, kidneys or spleen [1]. Intramural pseudocysts of the duodenum are very rare and here we describe a case of intramural duodenal pseudocyst which presented with symptoms of gastric outlet obstruction caused by pseudocyst as well as the surrounding inflammatory reaction causing stenosis.

A 36-year-old male, chronic alcohol consumer, presented to us with recurrent non-bilious vomiting of 15 days duration. He also complained of intermittent epigastric pain of one year duration with radiation to the back that used to get relieved with oral painkillers. There was history of loss of weight but appetite was preserved. Clinical examination was unremarkable. A contrast-enhanced computed tomography (CECT) of the abdomen revealed dilated stomach with a hypodense lesion posteromedial to the second part of the duodenum (Fig. 1; arrow). An upper gastrointestinal endoscopy revealed dilated stomach with residue and narrowing at the junction of first and second part of the duodenum. Careful examination revealed an extrinsic bulge at the area of the narrowing (Fig. 1) and scope was negotiable across this narrowing. Subsequently, endoscopic ultrasound (EUS) was performed with a radial echoendoscope and it revealed a 1.2 cm cystic lesion (Fig. 2) in the second part of the duodenum, at the site of narrowing. Careful examination revealed that muscularis propria of the duodenal wall was seen intact around this lesion (Fig. 2; arrow), suggesting an intramural location. The duodenal wall was also noted to be thickened with loss of wall stratification at places. The pancreas showed echogenic foci and strands along with ill defined lobules. The main pancreatic duct was mildly dilated with hyperechoic wall. EUS-guided aspiration of the cyst revealed hemorrhagic fluid with markedly elevated amylase and lipase and normal CEA levels. The cyst was completely emptied and a nasojejunal tube was placed for enteral feeding. The oral feeding was gradually reintroduced and once patient tolerated oral feeds well the nasojejunal tube was removed. He was diagnosed as chronic pancreatitis with intramural pseudocyst in the duodenum and was started on oral enzymes and anti-oxidants and he is doing well till the last follow up four months after the discharge.

Intramural pseudocysts of the duodenum are very rare and usually occur posteriorly with second part of the duo-

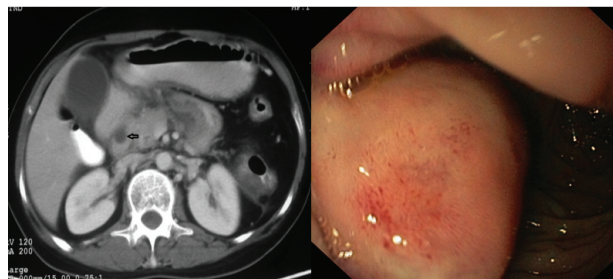


Figure 1 Left: Contrast-enhanced computed tomography abdomen: hypodense lesion noted posteromedial to the second part of the duodenum (arrow); Right: Endoscopy showing an extrinsic bulge at the junction of first and second part of the duodenum

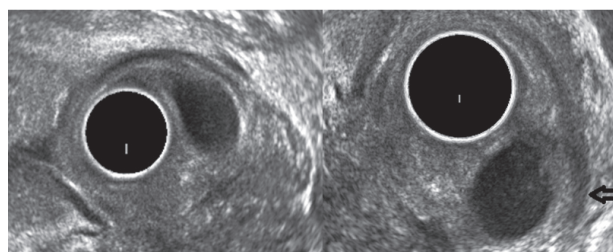


Figure 2 Left: Endoscopic ultrasound (EUS) showing a 1.2 cm cystic lesion in relation to second part of duodenum; Right: Careful EUS examination reveals intact muscularis propria of the duodenal wall around this lesion (arrow), suggesting an intramural location

denum being the most common site. This is because the posterior surface of the duodenum is in direct contact with the head of the pancreas with no effective barrier to prevent the digestive effects of pancreatic secretions [2,3]. Depending on the depth of the penetration, these duodenal pseudocysts may develop between the serosa and muscularis, or between the muscularis and mucosa [2,3]. In our case, it was located between muscularis and mucosa.

Department of Gastroenterology, Post Graduate Institute of Medical Education and Research (PGIMER), India

Conflict of Interest: None

Correspondence to: Dr Surinder Singh Rana, Department of Gastroenterology, PGIMER, Chandigarh, 160 012, India, Tel.: +91 172 2749123, Fax: +91 172 2744401, e-mail: drsurinderrana@yahoo.co.in

Received 27 June 2012; accepted 17 July 2012

References

1. Bhasin DK, Rana SS, Nanda M, et al. Endoscopic management of pancreatic pseudocysts at atypical locations. *Surg Endosc* 2010;**24**:1085-1091.
2. Bellon EM, George CR, Schreiber H, Marshall JB. Pancreatic pseudocysts of the duodenum. *Am J Roentgenol* 1979;**133**:827-831.
3. McCowin MJ, Federle MP. Computed tomography of pancreatic pseudocysts of the duodenum. *Am J Roentgenol* 1985;**145**:1003-1007.