cold biopsy may be more likely in individuals with thrombocytopenia or coagulopathy.

Dieulafoy’s lesion is an uncommon cause of major GI bleeding, and it may be difficult to recognize. It consists of an arteriole that protrudes through a tiny mucosal defect, usually within 6 cm of the gastroesophageal junction on the lesser curve of the stomach. Despite widespread awareness of this entity, it remains a diagnostic challenge for gastroenterologists because of its small size and hidden location. In our case, forceps biopsy, although performed with a standard biopsy forceps, might have potentially created extensive shearing of the mucosa from the underlying fixed submucosa and muscularis propria, thus resulting in tearing a small artery in the submucosal layer. To the best of our knowledge, this is the first case report of a gastric Dieulafoy-like lesion associated with an endoscopic cold biopsy. Although extremely rare, this kind of complication associated with endoscopic cold biopsy should be taken into account during diagnostic EGD because it may be fatal if not appropriately treated. Emergency endoscopy including hemostasis is the most effective method of diagnosing and treating the disease.

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Pneumothorax, pneumomediastinum, pneumoperitoneum, pneumoretroperitoneum, and subcutaneous emphysema after ERCP

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ERCP complications include pancreatitis, bleeding, cholangitis, and perforation. Overall, the procedure carries a death rate of 1% to 1.5%. ERCP-related perforation is a rare but serious complication, with a mortality rate of up to 23%. It is generally agreed that some ERCP-related perforations can be successfully managed without surgery. We report the case of a patient with post-ERCP pneumothorax, pneumomediastinum, pneumoperitoneum, pneumoretroperitoneum, and subcutaneous emphysema treated conservatively.

CASE REPORT

An 82-year-old man with cholangitis and transabdominal-US evidence of cholelithiasis and common bile duct stones underwent ERCP with sphincterotomy as well as stone extraction with basket and balloon (Fig. 1). The procedure was difficult and prolonged. After the procedure, the patient experienced hypotension, tachycardia, decreased oxygen saturation, abdominal distension, and subcutaneous emphysema of the chest extending to the neck. An endotracheal tube was positioned for assisted respiration, and he was hospitalized in an intensive care unit.

Chest and abdominal CT revealed left pneumothorax and pneumomediastinum (Fig. 2), subcutaneous emphysema (Fig. 3), pneumoperitoneum (Fig. 4), and pneumoretroperitoneum (Fig. 5), without evidence of retroperitoneal or peritoneal collections.

The patient was managed conservatively with immediate chest tube placement (Fig. 6), nasogastric suction, and broad-spectrum antibiotics; his clinical condition rapidly improved, with lung reexpansion and reduction of pneumoperitoneum, and he was discharged after 9 days.

One month later, he underwent a laparoscopic cholecystectomy without any complication.
DISCUSSION

Some types of ERCP-related perforation can be managed conservatively. Factors which carry an increased risk of ERCP-related perforation include suspected sphincter of Oddi dysfunction, dilated bile duct, papillary stenosis, sphincterotomy, age, and long duration of the procedure.

Stapfer et al. classified the perforations in relation to mechanism, anatomical location, and severity of injury.
which may predict the need for surgery. They classified ERCP-related perforation into 4 types in descending order of severity: Type I, lateral or medial wall duodenal perforation; Type II, peri-Vaterian injuries; Type III, distal bile duct injuries related to wire/basket instrumentation; and Type IV, retroperitoneal air alone. Type IV is probably related to the use of compressed air to maintain patency of the duodenal lumen, which can result in air diffusion within the layers of the duodenal lumen wall or outside the lumen, as in pneumomediastinum.4,11 This is not a true perforation, and therefore does not require surgical intervention, but the possibility of an unrecognized small perforation may be taken into consideration. In some cases, air can dissect from the retroperitoneum into the peritoneum, mediastinum, pleura, or subcutaneous tissue, resulting in pneumoperitoneum, pneumomediastinum, pneumothorax, or subcutaneous emphysema, respectively.12-17 This event is rare but potentially fatal, and requires prompt treatment.

We did not find any evidence of true perforation, so we suppose that this complication probably occurred because of prolonged air insufflation to maintain the patency of the duodenal lumen with consequent increase in pressure and interstitial air extravasation from the duodenum.

In conclusion, even in cases of severe physical and CT findings, patients can respond to early and conservative treatment with a favorable outcome.

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EUS-guided self-expandable stent placement in 1 step: a new method to treat pancreatic abscess

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The EUS-guided drainage of pancreatic pseudocysts is considered the first-line treatment to drain pseudocysts in close proximity to the stomach and duodenum. The EUS-guided approach substantially extends the reach of endoscopic drainage to include patients with nonbulging pseudocyst and gastric varices. The use of a large-channel linear echoendoscope allows for 10F stent placement into the pseudocyst without the use of a duodenoscope (1-step technique).1-8

Here we report a case of pancreatic abscess9 involving the head and body of the pancreas in close proximity to the gastric body and duodenum that was not resolved by the placement of a transgastric double pigtail and a naso-cystic tube. It was definitively treated by EUS-guided cystic-duodenal self-expandable covered metal stent placement.

CASE REPORT

A 40-year-old man with previous acute biliary pancreatitis who had been discharged 3 months previously from another hospital was admitted for severe epigastric pain. On admission, he had abdominal pain and fever and was vomiting; the laboratory tests showed leukocytosis (15,000 white blood cells/mmc [normal 4000-8000 white blood cells/mmc]); amylase and lipase levels were normal, and liver function tests showed normal results. Abdominal US showed a large anechoic lesion in the body and head of the pancreas. CT scan confirmed the presence of large cysts (18 × 15 × 13 cm) involving the body and head of the pancreas, without any signs of pancreatic necrosis (Fig. 1). The location of the cysts suggested that an EUS-guided transgastric approach would be best. The EUS showed a large, anechoic cyst with hyperechoic material inside (Fig. 2); the puncture was performed under Doppler guidance to rule out interposed vessels. A 19-gauge needle (EUSN-19-T; Wilson Cook Medical, Inc, Winston-Salem, NC) was introduced into the cyst. A 0.035-inch wire (Jagwire, Microvasive Endoscopy, Boston Scientific Corp, Natick, Mass) was then positioned into the cystic cavity, and a pre-cut was done to create a fistula; a double pigtail (10 cm-10F) and a naso-cystic tube (8F) were introduced for immediate drainage of pus. Despite the transgastric stents and irrigation with saline solution (60 mL every 3 hours), the patient continued to have fever, and at the CT scan, which was performed 1 week later, the cyst was the same size (Fig. 3). After discussion with radiologists and surgeons, a duodenal approach was attempted, given that the transgastric stents were still working (draining pus) and the abscess was adjacent to the duodenum. The patient was informed of the risks, and a specific informed consent was obtained before the procedure. The cyst was punctured with a 19-gauge needle (EUSN-19-T), and pus was aspirated; a 0.035-inch