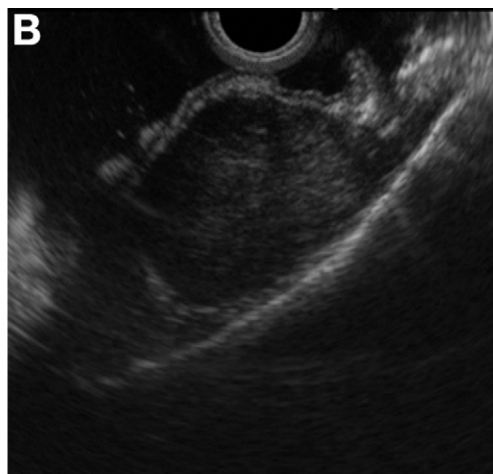
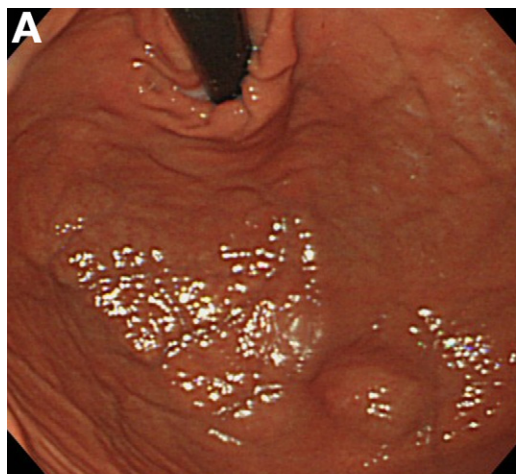


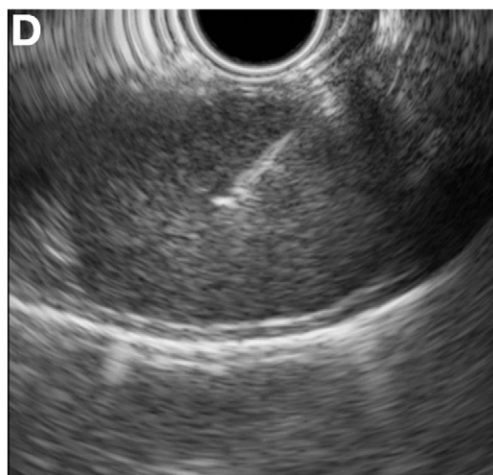
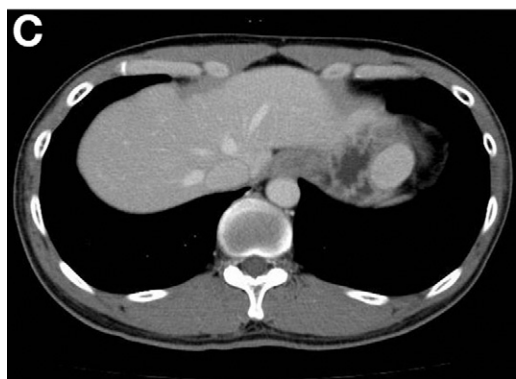
An Unusual Case of Submucosal Tumor in the Stomach

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Question: An asymptomatic, 31-year-old man was referred to our hospital because of a gastric tumor. He underwent esophago-gastroduodenoscopy as part of a health checkup, which revealed a gastric submucosal tumor (SMT) approximately 30 mm in size in the upper third of the greater wall of the stomach (Figure A). Physical examination was within normal limits. On endoscopic ultrasonography (EUS), the mass, a 20 × 23-mm lesion, involved the fourth layer of the gastric wall, and a hypoechoic homogeneous pattern was seen (Figure B, see Supplementary Video 1). Abdominal computed tomography revealed an ellipsoidal uniformly enhancing mass with intra-gastric growth (Figure C). From these examinations, an endoscopic diagnosis of gastric mesenchymal tumor with intramural growth



was made. EUS-guided fine needle aspiration biopsy (FNA) with a 22-gauge needle attached to suction (EchoTip Ultra; Cook Medical, Cook, Japan) was performed to obtain a tissue diagnosis (Figure D).

What is the differential diagnosis?

Look on page 1121 for the answer and see the GASTROENTEROLOGY web site (www.gastrojournal.org) for more information on submitting your favorite image to Clinical Challenges and Images in GI.

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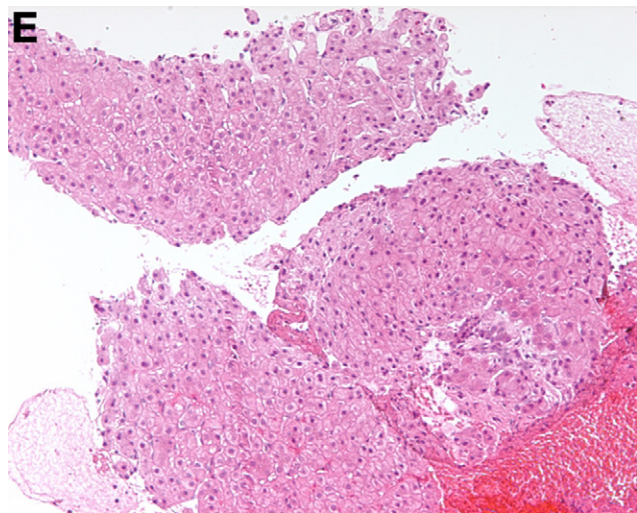
0016-5085/\$36.00

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Answer to the Clinical Challenges and Images in GI Question: Image 3 (page 895): Ectopic Liver Tissue

Histologic examination revealed that the tumor contained normal hepatic tissue. Hepatocytes and bile duct structures were noted in part of the restiform tissue. Major structures, such as the main bile duct, the main portal vein, or hepatic artery, were absent (Figure E). The final diagnosis was a tumor originating from ectopic liver tissue.

Ectopic liver is a rare anomaly in which macroscopic or microscopic foci of hepatic tissue are present outside of the native liver. It has been reported to develop in several sites outside the native liver, such as the thoracic cavity, gastrohepatic ligament, omentum, retroperitoneum, adrenal glands, pancreas, and, above all, the gallbladder.¹ However, to our knowledge, this is the first report describing ectopic liver in the stomach. Most cases are thought to be congenital in origin and seldom show clinical symptoms. They are generally singular, <5 cm in size, and found incidentally during routine clinical imaging for surgery, autopsy, or laparos-

copy as a pathologic specimen.² It is also reported that ectopic liver tissue is not always as fully developed as native hepatic tissue.³

Mesenchymal tumors, such as gastrointestinal stromal tumors, leiomyomas, or schwannomas, are common diseases of the stomach, which are often recognized during routine endoscopies. However, it is difficult to diagnose them without histologic and immunohistochemical confirmation.

We report a rare case of ectopic liver in the stomach mimicking an SMT, which was successfully diagnosed by EUS-FNA. With a reliable tissue diagnosis, the patient was able to avoid surgery. Ultimately, we should consider that ectopic liver tissue is among the possible differential diagnoses of gastric SMTs.

Supplementary Material

Note: To access the supplementary material accompanying this article, visit the online version of *Gastroenterology* at www.gastrojournal.org, and at <http://dx.doi.org/10.1053/j.gastro.2012.04.020>.

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Answer to the Clinical Challenges and Images in GI Question: Image 4 (page 896): Pancreaticobiliary Maljunction With Bifid Pancreatic Ducts Presenting as Recurrent Pancreatitis and Concurrent Gallbladder Adenocarcinoma

Figure A shows marked intrahepatic and extrahepatic biliary ductal dilation and an irregular enhancing mass along the lateral wall of the gallbladder (*long arrow*). Figure B shows an abnormal pancreaticobiliary junction, with the common bile duct inserting into a distal pancreatic duct to form a cystically dilated common channel (*arrowhead*), as well as a bifid main pancreatic duct (*long arrow*). Figure C shows a bifid pancreatic duct, and no evidence of a pancreatic mass. Other EUS images visualized an irregular gallbladder mass. Figure D shows an irregular mass in the gallbladder wall, with final pathology revealing an invasive, well-differentiated adenocarcinoma of the gallbladder (*long arrow*) with negative margins and no evidence of lymph node involvement (T1N0Mx). The