Endoscopic treatment of heterotopic pancreas localized in the duodenum

To the Editor,

Heterotopic pancreas is most frequently seen in the duodenum, lacking the normal anatomic and vascular structure of the pancreas (1). The preoperative diagnosis is usually complex and challenging. Treatment of cystic dystrophia of a heterotopic pancreas (CDHP) remains controversial. In this letter, we are presenting a case of giant CDHP that was diagnosed within the preoperative stage and treated with endoscopic cystoduodenostomy.

A 50-year-old male patient was referred to our clinic with a presenting complaint of jaundice. Hypertension was present in the medical history. He had a history of alcohol abuse. Physical examination was normal other than jaundice. Blood test results were: alkaline phosphatase 1564 U/L, gamma glutamyl transpeptidase 1449 U/L, amylase 250 U/L, total bilirubin 3.5 mg/dL, and direct bilirubin 2.5 mg/dL. Endosonographic examination (EUS) revealed a bulging cystic lesion in the duodenum with a diameter of 7 cm, originating from the wall of the duodenum (Figure 1). A window was created for the cyst that protruded into the duodenum and caused jaundice; with the guidance of endosonography, cyst contents were drained via cystoenterostomy procedure. Cystoenterostomy was completed without stent replacement. Carinoembryonic antigen (CEA) level was normal, but amylase was 2250 U/L. By entering through the pre-created window, multiple biopsies were performed from the cyst wall. The patient was diagnosed with CDHP on microscopic examination from biopsy samples (Figure 2). After a year, complete resolution was observed.

Cystic dystrophia of a heterotopic pancreas is most frequently seen in the peripapillary duodenum (2). A pseudocyst in ectopic pancreatic tissue located in the duodenal wall is a relatively rare condition (3). The most common EUS findings in CDHP are hypertrophy in the duodenal wall, hypoechoic cavity in the muscularis propria, and a duct structure surrounding the cyst (2). In our case, EUS revealed hypertrophy in the duodenal wall and hypoechoic cavity in the muscularis propria. Normal CEA level was found in an analysis of cyst contents, and high amylase level plus EUS findings indicated that the initial diagnosis was a pseudocyst developing in a state of pancreatitis.

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Treatment of CDHP is still controversial. The most common surgical intervention is pancreaticoduodenectomy or gastrointestinal bypass (4). Endoscopic fenestration was especially beneficial in cases with a few large cysts located superficially (5). Jouannaud et al. conducted a trial on a series of 23 patients with chronic alcoholic pancreatitis and CDHP and performed cystoduodenostomy in 2 patients; due to symptomatic relapse, surgical treatment was required for these patients at the 12th and 20th months (6).

In CDHP patients, cystoduodenostomy performed under EUS guidance may lead to successful results. This approach may prevent a major surgical operation and consequent complications.

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