Groove Pancreatitis with Several Cystic Lesions around the Pancreatic Head Treated Conservatively: Report of a Case

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Key Words

Groove pancreatitis · Cystic lesion · Conservative treatment

Abstract

A 61-year-old man was admitted to our hospital with epigastric pain and vomiting. Enhanced abdominal computed tomography revealed inflammatory change of the pancreatic groove and focal wall thickening of the second portion of the duodenum with several cystic lesions around the head of the pancreas. We diagnosed atypical type of groove pancreatitis. The patient made a satisfactory recovery by conservative medication treatment for acute on chronic pancreatitis and cystic lesions disappeared in parallel with pancreatitis. Groove pancreatitis is a rare form of chronic pancreatitis, and to the best of our knowledge, our patient is the first case in the English literature of groove pancreatitis with cystic lesions around the head of the pancreas, which disappeared after conservative treatment for pancreatitis.

Introduction

Groove pancreatitis is a rare form of chronic pancreatitis localized within the ‘groove’ between the pancreatic head, duodenum and common bile duct [1, 2]. Discrimination of groove pancreatitis from pancreatic head cancer can often be difficult and is confirmed by surgery such as pancreaticoduodenectomy [2–4]. Therefore, imaging examinations is very important to diagnose groove pancreatitis. We herein report a case of groove pancreatitis with several cystic lesions around the head of pancreas, which disappeared after conservative treatment for pancreatitis.

Case Report

A 61-year-old man was urgently admitted to our hospital with severe epigastric pain and vomiting. The patient had a history of chronic pancreatitis from alcohol abuse and early gastric cancer treated four years earlier by segmental gastrectomy. Laboratory data were as follows: white blood cell count $16,200/\text{mm}^3$ with 74% neutrophils, serum amylase 298 IU/l, and serum C-reactive protein 9.5 mg/dl. Abdominal enhanced computed tomography (CT) revealed inflammatory change of the pancreatic groove ([fig. 1](#), arrows) and focal wall thickening of the second portion of the duodenum with several cystic lesions around the head of the pancreas ([fig. 1](#), arrowheads). Magnetic resonance cholangiopancreatography revealed a defect in the main pancreatic duct of the head and mild dilatation and irregularity of the distal pancreatic duct, which suggested protein plug. The biliary tree did not show abnormality. Upper gastrointestinal endoscopy revealed stenosis of the supraampullary area of the duodenum and erosive change of duodenal mucosa. Histological examination by endoscopic biopsy revealed inflammatory change of the duodenal mucosa without malignant findings. The patient was diagnosed with acute on chronic, atypical type of groove pancreatitis with duodenal wall thickening and several cystic lesions around the head of the pancreas.

Conservative treatment with i.v. antibiotics, proton pump inhibitor and ulinastatin was started. The patient's symptoms, such as epigastric pain and vomiting, and blood values improved satisfactorily. Abdominal enhanced CT on the 18th hospitalization day revealed an improvement tendency of the inflammatory change of the pancreatic groove and duodenal wall thickening, and disappearance of several cystic lesions around the head of the pancreas in parallel with recovery of groove pancreatitis. Upper gastrointestinal endoscopy revealed that duodenal stenosis and erosion were improved. We considered that the wall thickening of the duodenal second portion and several cystic lesions around the head of the pancreas were associated with groove pancreatitis. The patient made a satisfactory recovery and was discharged on the 33rd hospitalization day. 2 months after discharge, the patient had no clinical symptoms and on abdominal enhanced CT, there remained only mild dilatation of the distal pancreatic duct, but no inflammation in the pancreatic groove and duodenum and no cystic lesions around the head of the pancreas ([fig. 2](#)).

Discussion

First reported by Becker in 1973 [1], groove pancreatitis has been known as a rare form of chronic pancreatitis localized within the 'groove' between the pancreatic head, duodenum and common bile duct. This clinical entity was classified into pure type and segmental type [2]. In pure type groove pancreatitis, the inflammatory change is localized within the pancreatic groove and not in the pancreatic parenchyma. Segmental type groove pancreatitis is associated with inflammatory change that extends from the pancreatic groove to the duodenum and head of the pancreas. Imaging findings of groove pancreatitis resemble those of pancreatic head tumor, and differential diagnosis of the two conditions can be difficult [2]. Thus, for the diagnosis of groove pancreatitis surgery such as pancreaticoduodenectomy is sometimes required.

Some reports described that groove pancreatitis is associated with true cysts of the duodenal wall and pancreas [2]. Yet to the best of our knowledge, there has been no report in the English literature that several cystic lesions around the head of the pancreas associated with groove pancreatitis disappeared after conservative treatment. In our patient, the pancreatic head and groove showed only mild swelling as pancreatic abnormalities on abdominal enhanced CT. On the other hand, because of stenosis, severe thickening of the duodenum and several cystic lesions around the head of the pancreas, exclusion of malignant tumor of the duodenum or pancreas was necessary. We were able to diagnose segmental groove pancreatitis by radiological characteristics, absence of malignancy of duodenal endoscopic biopsy, presence of protein plug in the pancreatic duct, previous history of chronic pancreatitis, alcohol abuse and segmental gastrectomy. The patient was then treated and made a satisfactory recovery by conservative treatment without an operation such as pancreaticoduodenectomy.

With advances in imaging techniques, accurate diagnosis of groove pancreatitis has been reported in recent years [3]. On the other hand, erroneous diagnosis of groove pancreatitis in a patient with pancreatic head cancer has also been reported [4]. For groove pancreatitis, therefore, careful diagnosis and follow-up after the diagnosis are important.

Fig. 1. Abdominal enhanced CT revealed inflammatory change of the pancreatic groove (arrows) and focal wall thickening of the second portion of the duodenum with several cystic lesions (arrowheads).

Fig. 2. Abdominal enhanced CT at 2 months after discharge revealed improvement of inflammatory change of the pancreatic groove, duodenal wall and disappearance of the cystic lesions.

References

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