

CASE REPORT

Pancreatic parenchymal calcification induced by permanent indwelling transmural stent

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Introduction

Long-term transmural stent placement is a safe and effective strategy for prevention of recurrence of pancreatic fluid collections in patients with walled-off necrosis and disconnected pancreatic duct syndrome. We report a rare case of pancreatic parenchymal calcification induced by a long-term transmural stent.

Case report

A 45-year-old male was treated 4 years ago with endoscopic transmural drainage for walled-off necrosis that developed following alcohol-related necrotizing pancreatitis. Following resolution, a 7Fr 5 cm double-pigtail plastic stent was left permanently because of pancreatic duct disconnection. After an asymptomatic period of 4 years, he presented with episodic abdominal pain. Contrast-enhanced computed tomography of abdomen demonstrated the transmural stent in situ with one of the pigtails inside the parenchyma of the distal body of pancreas (Fig. 1a). The stent was surrounded by punctate calcification in the pancreatic parenchyma (Fig. 1a). The head and downstream body of the pancreas was normal. The pancreatic parenchyma surrounding the stent was hypoechoic on endoscopic ultrasound (EUS) (Fig. 1b) and stiff on EUS elastography (Fig. 1c). Contrast-enhanced EUS

Abstract

Long-term transmural stent placement is a safe and effective strategy for the prevention of recurrence of pancreatic fluid collection in patients with walled-off necrosis and disconnected pancreatic duct syndrome. The presence of a stent for an indefinite period has been shown to be safe without any serious adverse effects. We report a rare case of pancreatic parenchymal calcification induced by long-term transmural stent.

demonstrated patchy enhancement of the involved area (Fig. 1d), and EUS-guided fine-needle aspiration indicated benign ductal epithelial cells with inflammatory cells. The transmural stent was removed, and the patient was started on anti-oxidants and non-steroidal anti-inflammatory drugs. The patient is pain free after 3 months of follow up and does not require pain killers.

Discussion

Long-term transmural plastic stent placement is a strategy followed in patients with pancreatic fluid collection (PFC) associated with disconnected pancreatic duct syndrome to prevent recurrence of symptoms and/or PFC.¹ It has been shown to be a safe and effective strategy, with external migration being the only significant side effect.¹ The migrated stent has occasionally been reported to cause small bowel obstruction.² Transpapillary stent has been reported to induce both ductal and parenchymal changes of pancreas similar to chronic pancreatitis.³ These changes have been hypothesized to occur because of side-branch pancreatic duct occlusion, focal pancreatitis, or direct epithelial injury by the plastic stents. Pancreatic parenchymal changes caused by transmural stent, as seen in our case, have not been previously reported.

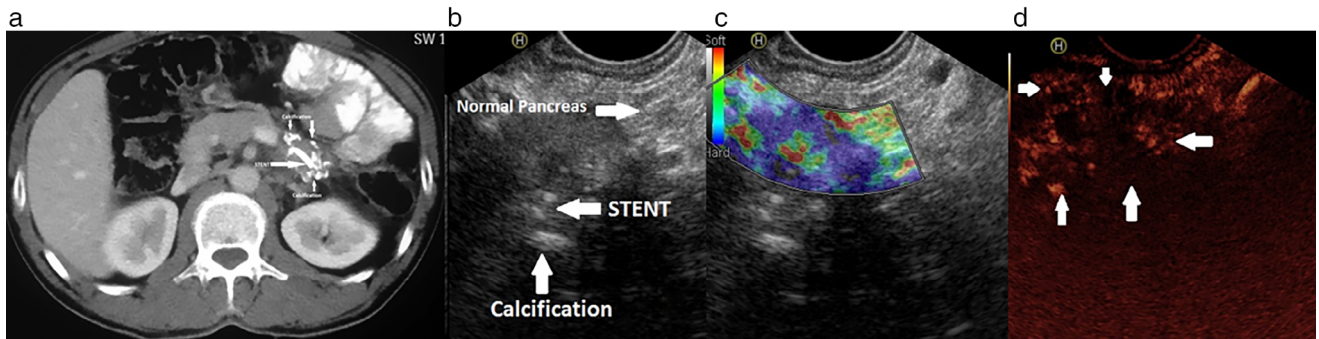


Figure 1 (a) Computed tomography: Long-term transmural stent in situ with one of the pigtails inside the parenchyma of distal body of pancreas and surrounded by punctate calcification in the pancreatic parenchyma. (b) EUS: Pancreatic stent surrounded by hypoechoic pancreas. (c) EUS elastography: Pancreatic stent surrounded by hypoechoic and stiff pancreas (blue color). (d) Contrast EUS: The involved area showing patchy enhancement. EUS, endoscopic ultrasound.

References

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