Dear Editor,

Endoscopic ultrasound (EUS) is the endoscopy combined with ultrasound to obtain images of the gastrointestinal (GI) tract and adjacent structures.\[1\] EUS-guided pancreatic pseudocyst (PPC) drainage has become increasingly popular due to its benefits, which include minimal invasiveness, lower cost, and excellent results. Conventional EUS-guided drainage requires an observation period of more than a month, we report a case of EUS-guided drainage about one week after PPC formation.

A 47 year-old man was admitted to our hospital following an abdominal crush injury. Increased abdominal pain and swelling appeared after 6 days of conservative treatment. An abdominal computed tomography (CT) revealed a PPC in the body of the pancreas measuring 9 cm in diameter [Figure 1], which constricted the intestinal tract. EUS [Figure 2] revealed that the cyst wall had a thickness of approximately 1 cm, and a good adhesion between the cyst wall and stomach wall; no relative motion when the patient took a deep breath. In order to relieve the gastrointestinal obstruction and intolerable abdominal distention, we performed EUS-guided PPC drainage on the 7th day [Figure 3]. Strong adhesions were formed between the cyst and the gastric wall; furthermore, fluid leakage did not occur. Neither pancreatitis nor any other infectious process occurred. The amylase level of the drainage fluid was 44,220 U/L and the lipase level was 118,430 U/L. One day after drainage, the abdominal pain and swelling significantly decreased. Four days later, CT revealed that the PPC had decreased in size [Figure 4].

Five months later, the stent was removed. A recurrence did not occur during 12 months of follow-up.

The formation of PPC as a complication of pancreatitis, operation, or trauma may lead to abdominal pain, gastric outlet obstruction, jaundice, pseudocyst infection, and even neighboring organ necrosis.\[2\] Therefore, medical intervention is necessary when
conservative treatments fail. EUS-guided PPC drainage is safe, economical, and effective; it has become the first clinical choice instead of surgery.\cite{3-6} However, the appropriate timing for drainage is difficult to determine in the clinical setting.

Traditionally, a 6-week observation period is generally recommended prior to the drainage of a PPC, which is based on two points:
1. Spontaneous regression may occur; and
2. The PPC wall requires time to thicken.\cite{5,7}

However, occasionally some PPCs will enlarge rapidly and cause painful compression of the surrounding structures, such as in our case. This situation requires immediate and effective intervention. When a 6-week observation of a PPC is not feasible, a preoperative diagnostic EUS is essential; it can measure the thickness of cyst wall and evaluate whether adhesions are present between the cyst and gastric wall. A successful emergency drainage can promptly alleviate pain.

This case demonstrates that the cutoff time of 6 weeks should be reevaluated. In our opinion, the size of PPC\cite{5,8,9} and the thickness of the cyst wall should take precedence over the 6-week observation period. This clinical observation has some limitations. One case cannot determine the necessity for modification of the traditional 6 week cutoff and the case lack of long-term follow-up. Thus, further studies are needed.

**REFERENCES**

1. Ge N, Sun S. Endoscopic ultrasound: An all in one technique vibrates virtually around the whole internal medical field. J Transl Intern Med 2014;2:104-6.
2. Ertuğrul I, Yüksel I, Parlak E, et al. Gastric necrosis due to rapidly growing pancreatic pseudocyst. Am J Gastroenterol 2008; 103: 2949-51.
3. Varadarajulu S, Lopes TL, Wilcox CM, et al. EUS versus surgical pseudocyst-gastrostomy for management of pancreatic pseudopseudocysts. Gastrointest Endosc 2008;68:649-55.
4. Kahaleh M, Shami VM, Conaway MR, et al. Endoscopic ultrasound drainage of pancreatic pseudocyst: A prospective comparison with conventional endoscopic drainage. Endoscopy 2006;38:355-9.
5. Giovannini M. Endoscopic ultrasound–guided pancreatic pseudocyst drainage. Gastrointest Endosc Clin N Am 2005;15:179-88.
6. Varadarajulu S, Tambane A, Blakely J. Graded dilation technique for EUS-guided drainage of peripancreatic fluid collections: An assessment of outcomes and complications and technical proficiency (with video). Gastrointest Endosc 2008;68:656-66.
7. Brugge WR. Approaches to the drainage of pancreatic pseudocysts. Curr Opin Gastroenterol 2004;20:488-92.
8. Roeder BE, Pfau PR. Endoscopic pancreatic pseudocyst drainage. Tech Gastrointest Endosc 2005;7:211-8.
9. Yasuda I, Iwata K, Mukai T, et al. EUS-guided pancreatic pseudocyst drainage. Dig Endosc 2009;21:582-6.