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Reply to the letter regarding "early dual drainage combining transpapillary endotherapy and percutaneous catheter drainage in patients with pancreatic fistula associated with severe acute pancreatitis"

Dear Editor,

Although the revised Atlanta classification proposed a definition of pancreatic fluid collections (PCs) according to concomitant necrosis and timing after severe acute pancreatitis (SAP) onset, little attention has been paid to the clinicopathogenic role of pancreatic fistula (PF) in SAP [1]. Our study demonstrated that pancreatic duct (PD) disruption occurs commonly (40%) and early ($\leq$ 2 weeks) in the course of the disease [2]. Major PF (pancreatography proven PD disruption) is associated with a severe form of SAP with a higher Ranson score and multiple organ failure. Increased amylase levels ($\geq$10,000 U/L) in PCs can be indication of endoscopic examination for PD disruption. PF is associated with persistent infection of PCs and sepsis through bacterial translocation [3], and also results in failure of percutaneous drainage (PCD) management [4].

We consider that SAP is one dynamic entity, and early interventions confine (infectious) inflammation and suppress the subsequent development of critical SAP. It is sometimes difficult to distinguish acute necrotic collections from peripancreatic fluid collections, especially in the early phase [1]. Accordingly, we performed the optimal intervention early according to the coexisting pathogenesis (not morphologic PC type), i.e., PCD and transpapillary drainage for infectious necrosis and PD disruption, respectively [2] (Fig. 1).

We prefer PCD to transmural drainage for two reasons. First, we consider PCD as active drainage, not a bridge to operation. Intensive management of drainage can be achieved by irrigating the larger and multiple catheters according to the disease process. Therefore, PCD is beneficial for estimating the extent of PCs and determining the optimal route under fluoroscopy. Second, we used nasopancreatic drainage (NPD), not a pancreatic stent (PS), as the primary PD drainage because of its efficiency and safety [2].

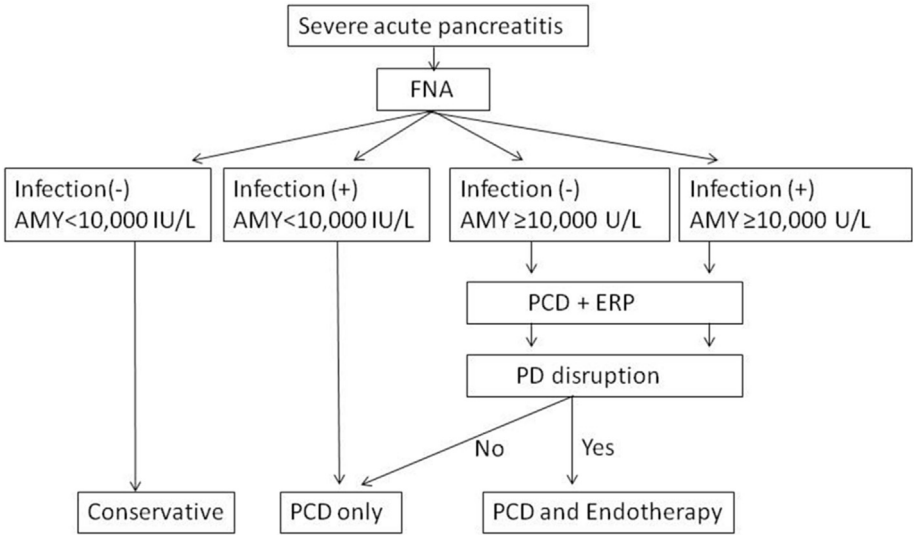

Fig. 1. Flowchart of our strategy for severe acute pancreatitis. The interventions were selected based on the FNA findings of the pancreatic fluid collection. AMY, amylase concentration; ERP, endoscopic retrograde pancreatography; FNA, fine-needle aspiration; PCD, percutaneous drainage; PD, pancreatic duct.

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Transmural drainage may disturb NPD placement and exchange.

We agree with Smoczyński et al. [5] that PF can be resolved by transpapillary drainage alone in the subset of patients with walled-off necrosis (WON). However, the single route drainage may be blocked by tissue necrosis in infectious WON. Moreover, the long-term (median of 304 days) of an indwelling PS with sphincterotomy carries risks of tube migration, PD abnormality [6], and secondary infection to the undrained necrosis or PCs. The case that Smoczyński et al. [5] presented seems to be an indication for concomitant PCD though retroperitoneal access. We believe that dual drainage (PCD and NPD) is more rational and effective than single route drainage, and it can be used in complicated cases of SAP.

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