Combined Endoscopic Transpapillary and Percutaneous Drainage to Treat Pancreaticopleural Fistula

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Background: Pancreaticopleural fistulae occur as a rare complication of acute or chronic pancreatitis and present as a high-amylase pleural effusion. Endoscopic decompression of the pancreatic duct through endoscopic nasopancreatic drain (ENPD) has shown encouraging results but the experience is limited. The data with regard to the usefulness and safety of percutaneous drainage for treating pancreatic pleural effusion is also limited.

Objectives: The aim of the present study was to evaluate the efficacy of combined endoscopic transpapillary nasopancreatic drainage and percutaneous approach to treat pancreaticopleural fistulae. Methods: From July 2008 to August 2010, six patients (age range: 23~68 years, 4 men and 2 women) with pancreatic pleural effusion with pancreatic duct disruption documented on pancreatogram were studied. All patients were treated by endoscopic pancreatic sphincterotomy, ENPD and percutaneous drainage.

Results: Pleural effusion resolved in all 6 patients within 4 weeks (10~23 days, median 15 days) of combined modality. The healing of ductal disruption was demonstrated by nasopancreatogram as early as 10 days. ENPD and percutaneous drain could be removed without another endoscopy. No patients had development of major complications including chronic pancreaticocutaneous fistula. There was no recurrence of pancreatic pleural effusion at a mean follow up of 9 months.

Conclusions: Combined ENPD and percutaneous drainage result in effective and safe clinical outcomes for the treatment of pancreaticopleural fistulae obviating the need of repeated endoscopy.

Key Words: Pancreaticopleural fistula, Endoscopic retrograde cholangiopancreatography