Efficacy and Clinical Outcome of Endoscopic Ultrasound-oriented Transmural Drainage

Dong-Won Ahn, Ji Kon Ryu, Byeong Jun Song, Jaihwan Kim, Won Jae Yoon, Yong-Tae Kim, Yong Bum Yoon
Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea

Background/Aims: Although endoscopic ultrasound (EUS)-guided transmural drainage (1-step procedure) of intra-abdominal fluid collection or cystic lesion is increasingly performed for its efficacy and safety, its application to all cases is still challenging because of high cost and limited capability of efficient drainage. This study was performed to investigate the efficacy and clinical outcome of EUS-oriented transmural drainage (2-step procedure, EUS-guided marking method followed by endoscopic drainage with fluoroscopic guidance).

Methods: We analyzed medical records of patients who received EUS-oriented transmural drainage in our institution from 2002 to 2010 retrospectively.

Results: 29 patients (mean age, 54.2±11.4, male/female, 25/4) received EUS-oriented drainage for intra-abdominal lesions, the majority of which were pancreatic pseudocysts (mean diameter, 8.4±4.4 cm). Luminal bulging was noted on endoscopy in 24 patients. Technical success of the EUS-oriented drainage was achieved in 21 patients (72%), and 17 of them experienced at least a 50% decrease in lesion size within 3 months. Among patients with technical failure, only 5 patients needed further intervention for drainage: EUS-guided drainage and percutaneous drainage in each two patients and surgical resection in one patient. Presence of luminal bulging was significantly associated with technical success (83% vs. 20%, p=0.004). Complications occurred in 4 patients: pneumoperitoneum and stent migration in each two patients. However, no further intervention (except endoscopic retraction of migrated stent) or surgery was needed.

Conclusions: According to our study, EUS-oriented transmural drainage is a feasible method in initial management for intra-abdominal fluid collection or cystic lesion.