Management of ERCP-related small bowel perforations: the pivotal role of physical investigation.

Management of endoscopic retrograde cholangiopancreatography (ERCP)-associated duodenal perforation remains controversial. Some recommend surgery, while others recommend conservative treatment. A retrospective chart review was conducted to identify patients treated at our institution for ERCP-related duodenal perforations. Study variables included indication for ERCP, clinical presentation, diagnostic procedures, time to diagnosis and treatment, location of injury, management, length of stay in hospital and survival. Between January 2000 and October 2009, 12,232 ERCP procedures were performed at our centre, and perforation occurred in 11 patients (0.08%; 5 men, 6 women, mean age 71 yr). Six of the perforations were discovered during ERCP; 5 required radiologic imaging for diagnosis. Three perforations were diagnosed incidentally by follow-up ERCP. In 1 patient, perforation occurred 3 years after the procedure owing to a dislocated stent. Four of 11 perforations were stent-related; in 2 patients ERCP was performed in a nonanatomic situation (Billroth II gastroenterostomy). Free peritoneal perforation occurred in 4 patients; 1 was successfully managed conservatively. Four patients (36%) were treated surgically and none died. Five patients were managed conservatively with a successful outcome, and 2 patients died after conservative treatment (18%).
Operative treatment included hepaticojejunostomy and duodenostomy (1 patient), suture of the perforation with T-drain (1 patient) and suture only (2 patients). The mean length of stay in hospital for all patients was 20 days. Post-ERCP duodenal perforations are associated with significant morbidity and mortality. Immediate surgical evaluation and close monitoring is needed. Management should be individually tailored based on clinical findings only.