PS 0969

Risk Factors and Management of ErCP Related Perforations: An Analysis of 5,642 Cases

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Background: Although endoscopic retrograde cholangiopancreatography (ERCP)-related perforations are rare, the morbidity and mortality rates are high. The aim of the study was to access the management and risk factors of patients with ERCP-related perforations.

Methods: From March 2006 to June 2014, total 5,642 ERCP procedures were performed and, of those, 29 ERCP-related perforations were occurred. Fifteen patients were male, and the mean age was 67.8 years.

Results: The rate of ERCP related perforations was 0.5% (28/5,642) and overall mortality rate was 7.1% (2/28). Perforations were categorized into two groups based on injury location: sphincterotomy site (n=23; 82.1%) due to sphincterotomy (n=12; 42.8%) and guidewire injury (n=11; 39.3%) and remote site from the papilla (n =5; 17.9%) due to severe duodenal stenosis (n=4; 14.3%) and altered anatomy (n=1; 3.6%). In 24 patients, perforation was detected during the procedure, and in four patients, perforations were rare, the morbidity and mortality rates are high. The aim of the study was to assess the management of patients with ERCP-related perforations. Twenty-three patients were treated conservatively and five patients (17.9%) underwent surgery. Four of the 5 patients had remote perforation from the papilla and had surgical intervention and were discharged home except one patient died with pneumonia progression. The other one patient was managed conservatively due to severe co-morbid conditions and denial of surgery. However, she died 17 days due to sepsis. All patients with sphincterotomy site perforation were successfully recovered after conservative therapy except one patient with severe post-ERCP pancreatitis. By multiple logistic regression analysis, there was no significantly associated with mortality and surgical intervention.

Conclusions: If the patient had post-ERCP pancreatitis, even if the sphincterotomy site perforation was occurred, may be needed intensive care including surgery. Also, in case of duodenal stenotic patients, careful insertion may reduce the risk of duodenal perforation as shown in our cases.

PS 0970

Endoscopic Nested Y-Shaped Self-Expanding Metal Stent Placement for Advanced Hilar Cholangiocarcinoma: A Study of a Novel Stent with a Unique Mesh Structure

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Background: Hilar malignant biliary obstruction poses particular challenges for endoscopists. Although endoscopic placement of SEMS is generally accepted as a palliative treatment in unresectable hilar cholangiocarcinoma, endoscopic placement of SEMS has been considered very difficult and complex. The aim of the study was to evaluate the technical and clinical efficacy of endoscopic placement of a newly designed SEMS with a nested Y-shaped configuration for hilar malignant biliary obstruction.

Methods: 39 patients were enrolled for the study. The used SEMS was a newly designed self-expandable nitinol stent with a nested Y-shaped configuration. Due to the unique mesh structure, it has superior widening center section with cross mesh structure between both end sections with hook and cross structure. The stents were placed with a nested technique. The 2nd uncoated SEMS was then deployed along the guidewire access through the interstices of the first SEMS. Technical & functional success, early complications, and clinical outcome were evaluated.

Results: Technical success was achieved in 32 patients. Mean procedure time was 26.6±10.0 minutes. All patients with successful placement of the stents showed a significant decrease in serum bilirubin level. There was neither any early complication nor procedure-related mortality. Late complication occurred in 7 patients, and all of them were related to stent occlusion from tumor ingrowth. In case with stent occlusion, revision with additional metallic stents in 2 cases, placement of plastic stents in 2 cases and PTBD in 4 cases. The mean stent patency period was 130 days.

Conclusions: Endoscopic placement of a newly designed SEMS with a nested Y-shaped configuration is easy, safe, and reasonably effective in achieving bilateral drainage of malignant biliary hilar obstruction.

PS 0971

Comparison Between Continuous infusion and Intermittent Bolus Injection of Propofol During Endoscopic Retrograde Cholangiopancreatography

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Background: The propofol sedation method for deep sedation during ERCP is not established yet. Because of very short duration of propofol action, it is frequently more difficult to maintain constant level of sedation, required for ERCP, by intermittent bolus injection compared to continuous infusion. This fluctuation of sedation level sometimes makes it difficult to perform complex ERCP. This study was conducted to compare sedation efficiency, safety and satisfaction between continuous infusion and intermittent bolus injection of propofol for deep sedation during ERCP.

Methods: 222 patients were randomly assigned to either continuous infusion or midazolam plus intermittent bolus injection of propofol.

Continuous group: Propofol was continuously administered via infusion pump and the doses were determined by sedation assistants.

Intermittent group: A loading dose of 2 mg of midazolam and 0.4 mg/Kg of propofol was initially injected and repeated bolus injection of 20 mg was followed according to sedation level. Sedation related parameters and adverse events during ERCP were evaluated. Satisfaction scores and difficulty scores of maintaining the sedation were also graded after ERCP.

Results: Induction time was similar between two groups, but recovery time was longer in the intermittent group. Satisfaction score was higher in the continuous group. Additional-ly, difficulty score of maintaining the sedation was lower in the continuous group. Larger amounts of propofol was used in the continuous group. Adverse events of transient hypoxemia occurred in eight patients and were recovered by chin lifting or ambu bagging. However the adverse events were not significantly different between two groups.

Conclusions: Continuous infusion of propofol was more efficient to maintain the constant level of sedation and more comfortable to endoscopist and sedation assistants for deep sedation during ERCP without increasing the risk of adverse events of deep sedation.

PS 0972

Comparing Liquid Based Cytology(Cellprep) Methods with Conventional Smear Methods for EUS-FNA Cytology of Pancreases

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Background: EUS guided FNA has been used worldwide to diagnose pancreatic lesion and this study is to compare the cellprep(CP) methods with conventional smear(CS) methods in pancreas cytology.

Methods: This is the prospective study. This study was done with total 49 pts who were suspected pancreatic cancer. Pancreatic diagnosis was used by EUS guided fine needle aspiration cytology. Centesis was done more than two. This study is to compare the cellprep(CP) methods with conventional smear(CS) methods in pancreas cytology.

Results: To 49 patients, 52 cytology were performed in our institution(among them, to two patients, it was performed twice), two were the inadequate sample in CP, and all were adequate samples in CS. When inadequate sample, the samples were not divided equally. In CP and CS, the negative : 10% and 10%, atypical cell : 35% and 25%, suspicious : 15% and 30%, and malignant : 30% and 35%. The sensitivity of cellprep and CS : 66.7% and 83.3%, specificity : 100% and 100%, positive predictive value : 100% and 100%, negative predictive value : 66.7% and 80%, accuracy : 80% and 90%.

Conclusions: Cellprep methods were inferior than conventional smear methods, thus until liquid based cytology(cellprep) methods can not be replaced by conventional smear methods. However, because there was selection bias, we are studying with equal sample amount.

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