Diagnostic Yield of Brush Cytology for Biliary Strictures During ERCP: A Single-Center Experience

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Introduction: Biliary stricture cases are a common finding in ERCPs performed on patients with obstructive jaundice. Pathological diagnosis is essential to guide treatment and prevent more invasive diagnostic workup. Current sampling techniques for obtaining bile duct samples during ERCP include intraoperative bile aspiration cytology, endobiliary forceps biopsy, brush cytology, fine-needle aspiration (FNA), cytology, and cytopathologic analysis of retrieved plastic biliary stents. Brush cytology is the most frequently used tissue sampling technique due to its simplicity, safety and wide availability. A modest overall mean sensitivity of 42% represents its main limitation although sensitivity varies in published data. The aim of this study was to assess the yield of brush cytology in patients with biliary strictures detected at ERCP when a systematic approach is used and when a dedicated pathologist performs the cytological analysis.

Methods: A descriptive, cross-sectional, observational study was designed to study the validity of diagnostic brush cytology during ERCP in biliary stenosis. The preliminary data of this study has been previously presented and this is an extension of the same study to include more patients. Patients found to have a biliary stricture at ERCP who underwent biliary brush cytology were included. We reviewed all ERCPs performed from January 2012 to December 2012. During a standard ERCP, a brushing was obtained and the cytology specimen was immediately transferred to a glass slide by the nursing staff, by smearing the cellular material directly from the brush. The slides were then immersed in fixative (alcohol). Subsequently, a dedicated pathologist conducted the cytological analysis and classified the samples into three categories: 1) positive for malignancy, 2) negative for malignancy, 3) invalid.

Results: A total of 69 patients underwent brushing for cytology in strictures seen at ERCP. There were 41 females and 28 males. 47.8% of the patients were between 45 and 65 years of age and 43.5% were above 65 years, while only 9% were below 45 years. Overall sensitivity was 59.4% (43.4% in males and 56.1% in females). This is better than the previously reported sensitivity in literature of around 40%.

Conclusion: Brushing the biliary strictures for cytology remains a sensitive method of diagnosis of biliary malignancies. This study shows that using a rapid fixing technique and single dedicated pathologist improves this yield.

The Influence of the Change of Body Composition After Neoadjuvant Treatment on Outcome After Pancreaticoduodenectomy for Pancreatic Cancer

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Introduction: Several reports have shown that body composition changes during neoadjuvant therapy may affect survival outcomes of pancreatic cancer patients. However, the influence of change of body composition after neoadjuvant therapy has not been well documented. This study aimed to investigate the influence of changes in body composition after neoadjuvant therapy on survival of patients with resectable pancreatic cancer.

Methods: We conducted a retrospective cohort study of patients with resectable pancreatic cancer who underwent neoadjuvant therapy at our hospital between January 2005 and December 2015. Patients were categorized into two groups according to whether they had undergone neoadjuvant therapy or not. Body composition changes during neoadjuvant therapy were calculated using the changes in body fat area (SFA) and skeletal muscle area (SMA). The median change of body composition was estimated using the proportion of change in SFA or SMA. The changes in body composition were analyzed using the Wilcoxon rank-sum test, and the association with survival outcomes was analyzed using Kaplan-Meier curves.

Results: The median change of SFA was -15.1% and the median change of SMA was +8.1%. The median change of body fat area was -15.3% and the median change of skeletal muscle area was +8.4%. The median change of body fat area was -15.3% and the median change of skeletal muscle area was +8.4%. The median change of body fat area was -15.3% and the median change of skeletal muscle area was +8.4%

Conclusion: The change of body composition after neoadjuvant therapy is associated with the survival outcomes of patients with resectable pancreatic cancer. Further investigations are needed to elucidate the mechanisms underlying these associations.

Cholangioscopy Has a High Therapeutic and Diagnostic Yield and Low Adverse Event Rate

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Introduction: Cholangioscopy permits direct biliary and pancreatic ducts visualization and allows a wide variety of therapeutic intervention such as laser or electrohydraulic lithotripsy (EHL) for difficult stones, and directed biopsy sampling of suspicious bile lesions.

Aim: Assessment of clinical and diagnostic success rate and adverse event rate in patients undergoing Spyglass cholangioscopy at a high volume center.

Methods: We conducted a retrospective analysis of a prospective cohort of patients undergoing ERCP with Spyglass cholangioscopy between 2009 and 2015. All patients included provided procedure indication, interventions methods, procedural time, radiation amount, clinical success rate and complications.

Results: 180 patients underwent 222 ERCPs with cholangioscopy for biliary and pancreatic indications during the study period. Female/Male ratio was 100/80, mean age was 68.8 ± 14.6 (range 21-93) years. Indications for ERCP included abdominal pain, elevated liver enzymes and biliary duct dilation or stricture. Pathologic findings including stone or stricture were identified in the common bile duct (CBD) (n=142), pancreatic duct (PD) (n=18) and right/left hepatic duct (n=20).