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Digital Single-Operator Cholangioscopy in the Management of Biliary Strictures – Our Initial Institutional Experience

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ABSTRACT

Background: Biliary strictures (BSs) often represent a diagnostic challenge when evaluated with conventional endoscopic techniques. Many recent studies have focused on the specificity, sensitivity and accuracy of digital single-operator cholangioscopy (DSOC) in cases of BSs. However, DSOC is not a standardized procedure and the institutional experience with DSOC when used in different settings can provide important information.
Methods: This is prospective study of consecutive patients undergoing DSOC from March 2016 until March 2018. The aims of the study were to evaluate the role of DSOC for: (a) adequate visualization de of the target lesion and collection of biopsy samples adequate for histological evaluation and/or (b) traversing the BS under DSOC guidance when this was not possible under fluoroscopy. in addition we investigated thepossible influence of previous stenting on the cholangioscopic image and histology.
Results: Data on 44 consecutive DSOCs on 40 patients (median age 64.53 years, 24 male, 16 female) with BSs were collected All the tissue specimens were adequate for histological evaluation. The sensitivity of the cholangioscopic image was 100% (95% CI, 82.4%-100%) and the specificity is 88.9% (95% CI, 51.8%- 99.7%). The sensitivity of DSOC-guided biopsies was 62.5% (95% CI, 35.4%-84.8%) and the specificity was 100% (95% CI, 59.0%-100%). There was no influence of previous stenting on the visual aspect and on the histological result ($p<0.05$). The procedure was successful in all the cases where DSOC was used for guide wire stricture cannulation. Adverse events occurred in 6.8%.
Conclusion: DSOC is successful in most cases and has high diagnostic yield with relatively low rate of adverse events.
Key words: cholangioscopy, digital single-operator cholangioscopy, indeterminate biliary strictures, adverse events

INTRODUCTION

The vast majority of biliary strictures (BSs) are malignant but data from surgical literature suggest that 15-24 % of patients undergoing surgical resection of a suspected bile duct carcinoma have benign etiology (1,2). BSs are considered to be indeterminate when a diagnosis can't be established upon

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Case Report

Intraductal Papillary Mucinous Neoplasm of the Pancreas: Need for a Tailored Approach to a Rare Entity – Still a Challenge for Clinicians and Surgeons. Case Presentations and Literature Review

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Abstract

Intraductal papillary mucinous neoplasm (IPMN) of the pancreas is a relatively new entity that has gained increased attention because of its unique features – presence of different subtypes with different malignant potential, biological behavior, and prognosis, higher rates of recurrences and concomitant or metachronous pancreatic duct cancer. It is rare with an incidence of 4 to 5 cases per 100 000. The relative lack of experience significantly hampers decision making for surgery (pancreatic head resection, distal pancreatectomy or enucleation) or follow-up.

Herein we present two cases managed by diametrically different tactic according to the risk stratification – distal pancreatectomy with splenectomy and observation, respectively. An up-to-date literature review on the key points in diagnostics, indications for surgery, the extent of surgery, follow-up, and prognosis is provided.

The tailored approach based on risk stratification is the cornerstone of management. Absolute indications for surgery are the lesions with high-risk stigmata, whereas the worrisome features should be evaluated by endoscopic ultrasound and fine-needle aspiration. Main duct and mixed type are usually referred to surgery, whereas the management of a branch type is more conservative due to the lower rate of invasive cancer. Strict postoperative follow-up is mandatory even in negative resection margins due to a high risk for recurrences and metachronous lesions.

Despite the guidelines, the intraductal papillary mucinous neoplasm remains a major challenge for clinicians and surgeons in the balance the risk/benefit of observation versus resection. Risk stratification plays a key role in decision-making. Future trials need to determine the optimal period of surveillance and the most reliable predictive factors for concomitant pancreatic duct cancer.

Keywords

follow-up, imaging diagnostic, intra-ductal papillary mucinous neoplasm, pancreas, surgery, tailored approach

Thieme

Intraluminal duodenal ("windsock") diverticulum: a rare cause of biliary obstruction and acute pancreatitis in the adult

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ABSTRACT

An intraluminal duodenal diverticulum (IDD) is a rare congenital anomaly, which is a result of incomplete recanalization of the foregut lumen during embryonic development. Most patients are asymptomatic. Symptoms usually occur after the third decade of life and mainly include epigastric pain, nausea, vomiting, or bloating. Less commonly, IDD may complicate with bleeding, duodenal obstruction, or acute pancreatitis. We present a case of IDD, manifested for a first time in adult with acute biliary obstruction and mild pancreatitis after laparoscopic cholecystectomy for acute calculous cholecystitis, successfully managed with endoscopic retrograde cholangiopancreatography (ERCP).

Introduction

An intraluminal duodenal diverticulum ("windsock" diverticulum) is a rare congenital abnormality related to an incomplete recanalization of the foregut during embryonic development and resulting in a duodenal diaphragm or web. Years of peristalsis lead to the development of a pulsion-like diverticulum centrally from the duodenal web [1, 3]. Symptoms usually appear after the age of 30 and are nonspecific including nausea, early satiety, or abdominal pain. Rare presentations are acute pancreatitis, acute upper gastrointestinal bleeding or upper gastrointestinal obstruction [2, 3]. It was first described by Silock in 1885 [1].

Case report

A 72-year-old woman was admitted to our unit with worsening abdominal pain, dark urine, and vomiting 6 days after laparoscopic cholecystectomy for acute calculous cholecystitis. Laboratory work-up revealed elevated liver enzymes, C-reactive protein (CRP), and lipase levels. Abdominal ultrasound showed a dilated common bile duct (CBD), slight pancreatic edema, and a biloma in the gallbladder bed. A computed tomography (CT) scan confirmed the findings and a cystic tumor mass was suspected in the duodenum at the level of the ampulla of Vater (▶ **Fig. 1**, ▶ **Fig. 2**). Magnetic resonance cholangiopancreatography (MRCP) showed a small (5 mm) stone in the CBD (▶ **Fig. 3**). The patient was scheduled for endoscopic retrograde cholangiopancreatography (ERCP). A double lumen was seen in the second portion of the duodenum, corresponding to a large saccular structure surrounded on both sides by normal mucosa (▶ **Fig. 4**, ▶ **Video 1**). The papillary orifice was difficult to find at the level of the septum (▶ **Fig. 5**). Cholangiography showed a dilated CBD and intrahepatic ducts, stenosis at the level of the papilla, and no leakage from the cystic duct stump. Biliary sphincterotomy followed by papillary large balloon dilation to 12 mm was performed. Balloon sweeps did not show any stones. The procedure was followed by duodenal exploration using a standard gastroscope and showing the diverticulum

Case Report

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Successful Endoscopic Treatment of a Patient with Delayed Diagnosed Boerhaave's Syndrome Using Two Ovesco-Clips and SEMS

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ABSTRACT

Esophageal perforation (EP) remains a life-threatening condition despite the progress in modern medicine. Morbidity and mortality rates are still high especially in delayed diagnosed cases. Interventional gastroenterology is an alternative to high-risk surgical procedures and offers satisfactory results especially in elder and comorbid patients. We report such a case of a late clinical presentation of complicated spontaneous EP treated by a combination of two OTSCs and a SEMS in order to close the defect.

Keywords: Esophageal Perforation; Boerhaave's Syndrome; Interventional Endoscopy

Introduction

Esophageal perforation (EP) remains a life-threatening condition despite the advancements of surgery, interventional gastroenterology and intensive care medicine. The most common causal factor is Iatrogenic - upper GI endoscopy, nasogastric tube insertion, surgery, endotracheal intubation, etc. [1]. A transmural EP may also occur after excessive vomiting. Such a "spontaneous" perforation is known as Boerhaave's syndrome as first described by Dr. Herman Boerhaave in 1724 [2]. EP is associated with high mortality rate reaching 10% for all cases and even 50% when the diagnostics have been delayed [3]. The treatment scheme consists of patient resuscitation and broad-spectrum antibiotics followed by surgical repair [4]. Surgery on its turn is associated with high morbidity and mortality as well as prolonged hospital stay. Recent progress in interventional endoscopy introduced minimally invasive approaches - over-the-scope clips, stenting, endoscopic suturing devices, etc. [4-9].

Case Presentation

A 71 -year old man was admitted to the surgical department of another hospital with deteriorating clinical condition, chest pain and fever. The patient reported severe vomiting 2 weeks before admission, but there was no subcutaneous emphysema as one of the features in the classic Mackler's triad. Thoracic X-ray discovered massive right pleural effusion and CT-scan confirmed right pleural empyema. Thoracotomy achieved empyema evacuation and pleural space debriding, but the patient condition did not improve. Gastric content was secreted from the pleural drainages on 3. Day after surgery. A follow-up CT-scan suspected EP since it discovered a contrast leakage. The patient was referred to our institution for further treatment. An upper endoscopy documented a complete wall laceration measured 25/10 mm with tight edges and granulations at the esophagogastric junction (Figure 1). The CT scan found a distal EP as the contrasting substance leaked in the right pleural

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Case Report: Open Access

Management of Hemosuccus Pancreaticus after Surgical Drainage of a Pancreatic Pseudocyst - A Rare Cause of Upper Gastrointestinal Bleeding

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Abstract

Haemosuccus pancreaticus (HP) is a rare life threatening and difficult to diagnose cause of upper gastro-intestinal hemorrhage. It presents bleeding fromthe ampulla of Vater via the pancreatic duct. A 34-year-old woman was discharged from the Surgery Department after operation of pancreatic pseudocysts. Later she was rehospitalized twice due to bleeding from the contact drainage and melena. The upper GI endoscopy found gastric varices without bleeding and no pathologic changes of the papilla of Vater examined with a duodenoscope. Endoscopic retrograde cholangiopancreatography(ERCP) revealed active bleeding from the papilla. Selective cannulation and contrast of the pancreatic duct found a distal stenosis, a cystic lesion at its level followed by a dilatation of the pancreatic duct in the body with defects in the lumen. Extravasation of the contrast from the duct to the body/tail pancreatic zone with contrasting of the left diaphragm cupola and the end of the contact drainage was observed. A pancreatic stent with side holes was placed to cover the lesion of the pancreatic duct in the tail. A distal stenosis of the choledochal duct was also detected due to possible compression by the pseudocyst in the pancreatic head and a stent was also placed. The control CT proved the correct position of the stents and reduced sizes of the pseudocyst. After ERCP was done a complete stop of the secretion from the retroperitoneal drainage was achieved. We reported a rare case of GI bleeding - HP, where ERCP could play a key role in its diagnosis and treatment.

Introduction

Haemosuccus pancreaticus (HP) is a rare life threatening and difficult to diagnose cause of upper gastro-intestinal(GI) hemorrhage. It presents bleeding from the ampulla of Vater via the pancreatic duct. HP is most commonly associated with pancreatic inflammation, erosion of the pancrease by aneurysm or pseudo-aneurysm of the splenic artery. HP is the least frequent cause of upper gastrointestinal bleeding (1/1500), more common in men (male to female ratio 7:1) and mostly occurs as a complication of acute or chronic pancreatitis and pancreatic cancer [1,2]. HP is difficult to diagnose because of its rarity, its anatomical location and the bleeding is often intermittent and cannot be easily diagnosed by esophagogastroduodenoscopy [1-4].

It was first described in 1931 by Lower and Farrell who reported a primary splenicaneurysm rupture into the main pancreatic duct while the name was given by Sandblom in 1970 [2,3]. Approximately 150 cases have been reported in the literature since then.

Case Report

A 34-year-old woman admitted to the Surgery Department of our hospital for elective surgery of pancreatic pseudocysts presented with upper abdominal pain, vomiting, weight consumption and breathing difficulty for the last two months. The patient had no similar conditions before despite she had been previously diagnosed with chronic pancreatitis. On clinical examination she was in bad condition being hypotensive with tachycardia (with a blood pressure of 90/60 mmHg and a heart rate of 110 beats per minute), with decreased breath sounds in the left side of the chest and a painful palpable epigastric mass. Four pancreatic cystic lesions were found on abdominal ultrasound (two in the pancreatic head and two in the body). Chest X-ray showed a large left pleural effusion. Surgeons performed thoracocentesis with drainage of the left pleural cavity, laparotomy with pancreatic necrosectomy and cholecystectomy. The pseudocysts were opened and external and transcystic drainages were placed. The patient was discharged in better condition with a clamped transcystic drainage catheter and a retroperitoneal drainage secretion up to 150 ml/24 h.

Ten days later she was admitted again with massive fresh bleeding from the contact drainage-500 ml for the last 12 hours. The laboratory tests showed a normocytic normochromic anemia (hemoglobin 9.6 mg/dl, hematocrit 30.0%) and normal coagulation status. Conservative therapy including proton pomp inhibitors (Esomeprasole -80 mg intravenous bolus followed by an 8 mg/h continuous infusion), fresh frozen plasma infusion, Terlipressin

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