INTRODUCTION: Pancreatic diseases, mainly pancreatic cancer, can result in a significant portal vein (PV) and superior mesenteric vein (SMV) stenosis, which in turn leads to all the complications associated with portal hypertension. The aim of this review is to evaluate the efficacy of stenting of PV/SMV stenosis due to pancreatic diseases.

METHODS: In April 2020, we searched English language case series and case reports using PubMed, Scopus, Google Scholar, MEDLINE, ScienceDirect, CINAHL, Complete, and Cochrane Library. Search keywords included, but not limited to pancreatic cancer, adenocarcinoma, pancreatitis, portal vein, superior mesenteric vein, stenosis, and stenting. Inclusion criteria included transendoscopic (TI) or percutaneous transhepatic (PT) stenting of non-transport PV/SMV stenosis secondary to pancreatic cancer or pancreatitis, excluding biliary and hepatic malignancies.

RESULTS: Twenty case series and case reports of 61 patients met the inclusion criteria. The studies were published between 1995 and 2019. The age of patients was between 22 and 86 years (average 63) with male predominance (60%). The main presenting symptoms included ascites and melena. The vast majority of patients had PV stenosis. Most of the cases had pancreatic cancer status post pancreatectoduodenectomy (98%) as the etiology of PV/SMV stenosis. PT venotomy was performed in 68%, while the TI approach in the remaining 32%. Portal venous pressure gradient (PVPG) was measured in 31 patients and was lowered from an average of 12.3 mmHg to 1.7 mmHg. Most of the patients had a high technical success rate and achieved symptomatic relief. Stent patency rate was widely variable 20 days to 7 years.

CONCLUSION: PV stenting is a widely accepted method to improve portal hypertension symptoms in the setting of liver transplantation. In non-transplant patients, TI and PT stenting of PV/SMV stenosis have only been reported in case reports/case series with a small number of patients. Thus, their efficacy remains unclear. In this abstract, we specifically reviewed the utility of stenting of PV/SMV stenosis in the setting of pancreatic pathology. Results demonstrated relief of portal hypertension-related symptoms and improvement of the quality of life. The drop in PVPG can be used as a measurable tool to demonstrate improved outcomes. Per our literature review, this is the first report reviewing the stenting of PV/SMV stenosis due to pancreatic disease. Further studies are needed to determine the efficacy and safety of these procedures.

[Table 1. Summary of the studies included in the review.]

Optimizing the Balance Between Contrast Dose and Fluoroscopy Time
Patrick Chang, MD,1 Selena Zhou, MD,1 Jonathan Sadiq, MD,1 Brent Hiramoto, MD,1 Ashley Portillo Recinos, BS1, Jessica Serna, BS1, Han Zhang, MD, MS,2 Christopher Ko, MD,1 Paul Leonor, MD,1 Helen Lee, ANP,2,3 Jacques Van Dam, MD, PhD,3 Ara B. Sahakian, MD,3 James Buchanam, MD, MS1,2

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INTRODUCTION: For difficult procedures, the interplay between duration of fluoroscopy use and dose of contrast injection has not been evaluated in a rigorous manner. Our aim was to define the appropriate contrast dose for difficult cases, as determined using the American Society for Gastrointestinal Endoscopy (ASGE) Endoscopic retrograde cholangiopancreatography (ERCP) Complexity Grading System10, to minimize fluoroscopy exposure.

METHODS: As part of an ongoing randomized controlled trial (NCT03387656) we prospectively recorded fluoroscopy time, contrast dose, detailed procedural information, and ASGE complexity grade. Our outcome of interest was the optimal dose of contrast use to minimize fluoroscopy use among difficult ERCP which were defined as procedures with ASGE Complexity Grade ≥ 3. A Monte Carlo Permutation Analysis was used to identify the inflection point in the relationship between contrast dose and fluoroscopy time. Jointpoint trend analysis software was used with contrast dose clustered into 5ml. intervals and mean fluoroscopy per interval was calculated.

RESULTS: From March 2017 to November 2019, contrast and fluoroscopy time was ranked by ASGE ERCP Grade for 129 patients (Table 1). The complexity grade strongly correlated with fluoroscopy and procedure time (P < 0.001). Monte-Carlo Permutation Analysis revealed that among the 91 patients with high complexity ERCP an inflection point at 18ml was observed after which increasing contrast use was associated with decreasing fluoroscopy time (Figure 1). No contrast induced allergies or other adverse events attributed to contrast occurred.

CONCLUSION: This study supports the use of standardized ASGE criteria for grading ERCP complexity. For complex ERCP, use of adequate contrast may help to reduce fluoroscopic exposure.

REFERENCES

[Figure 1. Inflection point of target contrast dose with fluoroscopy time for ERCP of ASGE Complexity Grade /S2.]

[Table 1. Association of ERCP intervention and ASGE Complexity Grading with contrast dose, procedure time, and fluoroscopy time.]

Impact of Obesity on Outcomes of Patients Admitted With Acute Pancreatitis in the U.S.: A Nationwide Analysis
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INTRODUCTION: Acute pancreatitis (AP) is an acute inflammatory condition of the pancreas. It is the most common GI reason for hospital admissions and has an overall mortality rate of 2–9%. Obesity is one of the most prevalent health conditions and is considered a major public health crisis. It is also a strong risk factor for many other health conditions and even plays an important role in AP.

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