

Introduction

Up to 8% of patients develop post-PD bilioenteric anastomotic strictures.

Post-PD anatomy poses challenges to successful ERCP, including sharp angulations, looping, long afferent limb length, and limitations of duodenoscope ie. Side-viewing, decreased flexibility, and larger caliber.

The rigidizing overtube (Pathfinder, Neptune Medical, Burlingame, Cali, USA) uses a vacuum device to become 15 times stiffer to provide scope stabilization and prevention of looping.

We aimed to study the use of the novel Pathfinder rigidizing overtube (RO) in improving success rate of post-PD ERCP.

Methods

Retrospective cohort study of post-PD patients who underwent ERCP with or without Pathfinder rigidizing overtube at MD Anderson Cancer Center between 2016 and 2021.

Technical success (TS) rate was defined as successful cannulation of biliary tree and treatment of stricture with dilation or stent placement when applicable.

Clinical success (CS) rate was defined as improvement in patient symptomatology with or without normalization of bilirubin level.

Results

47 patients underwent 102 ERCPs. Rigidizing overtube was used in 11 ERCPs among 5 patients.

Among RO cases, most common indications were elective stent removal, insertion, or exchange (n=5, 45.5%), obstructive jaundice (n=3, 27.3%), evaluation of stricture (n=2, 18.2%), or cholangitis (n=1, 9.1%).

Most common endoscope used was the therapeutic endoscope (n=6, 54.5%), followed by adult colonoscope (n=3, 27.3%).

Technical success rate was 82.4% without and 90.9% with RO. Clinical success rate was 75.5% without and 90.9% with RO.

The single procedure without TS or CS was due to severe choledochojejunal stricture
 There were no adverse events among ERCPs with RO use.

Table 1. Characteristics of ERCPs with RO use

Indications, n (%)	n=11
Obstructive jaundice	3/11 (27.3%)
Cholangitis	1/11 (9.1%)
Evaluation of stricture	2/11 (18.2%)
Stent evaluation	5/11 (45.5%)
Endoscope used for successful intervention, n (%)	n=10
Adult colonoscope	3/10 (30.0%)
Therapeutic upper endoscope	6/10 (60.0%)
Not specified	1/10 (10.0%)
Location of stricture, n(%)	n=11
Choledochojejunal stricture	9/11 (81.8%)
Intrahepatic stricture	1/11 (9.1%)
No stricture	1/11 (9.1%)
Stent characteristics, n (%)	n=9
Plastic	9/9 (100.0%)
Uncovered metal	0/9 (0.0%)
Covered metal	0/9 (0.0%)

Table 2. Results of ERCPs with and without RO use

ERCP Results	Total ERCPS (n=102)	RO ERCPs (n=11)
Technical success	84/102 (82.4%)	10/11 (90.9%)
Clinical success	84/98 (75.5%)	10/11 (90.9%)
Adverse events	5/102 (4.9%)	0/11 (0.0%)
Post-procedure fever	3/5 (60.0%)	-
Cholangitis	1/5 (20.0%)	-
Abd pain, N/V	1/5 (20.0%)	-

Figure 1. Rigidizing overtube in place

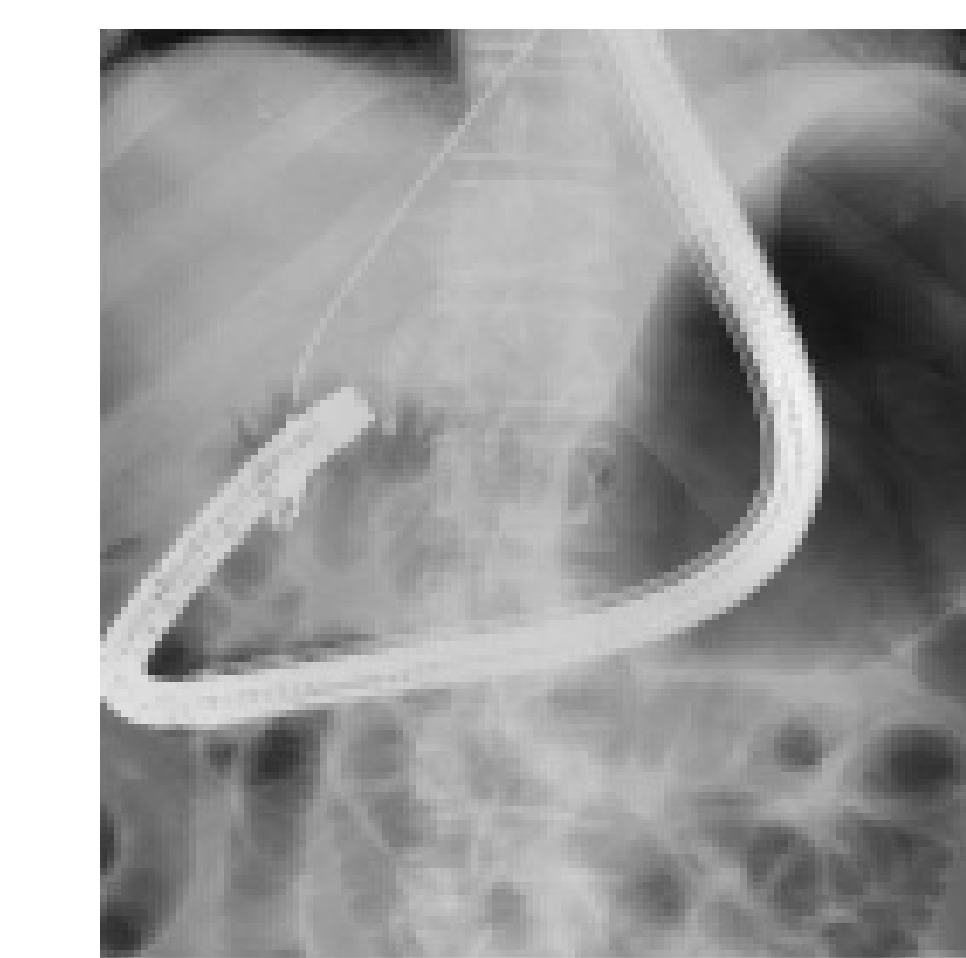
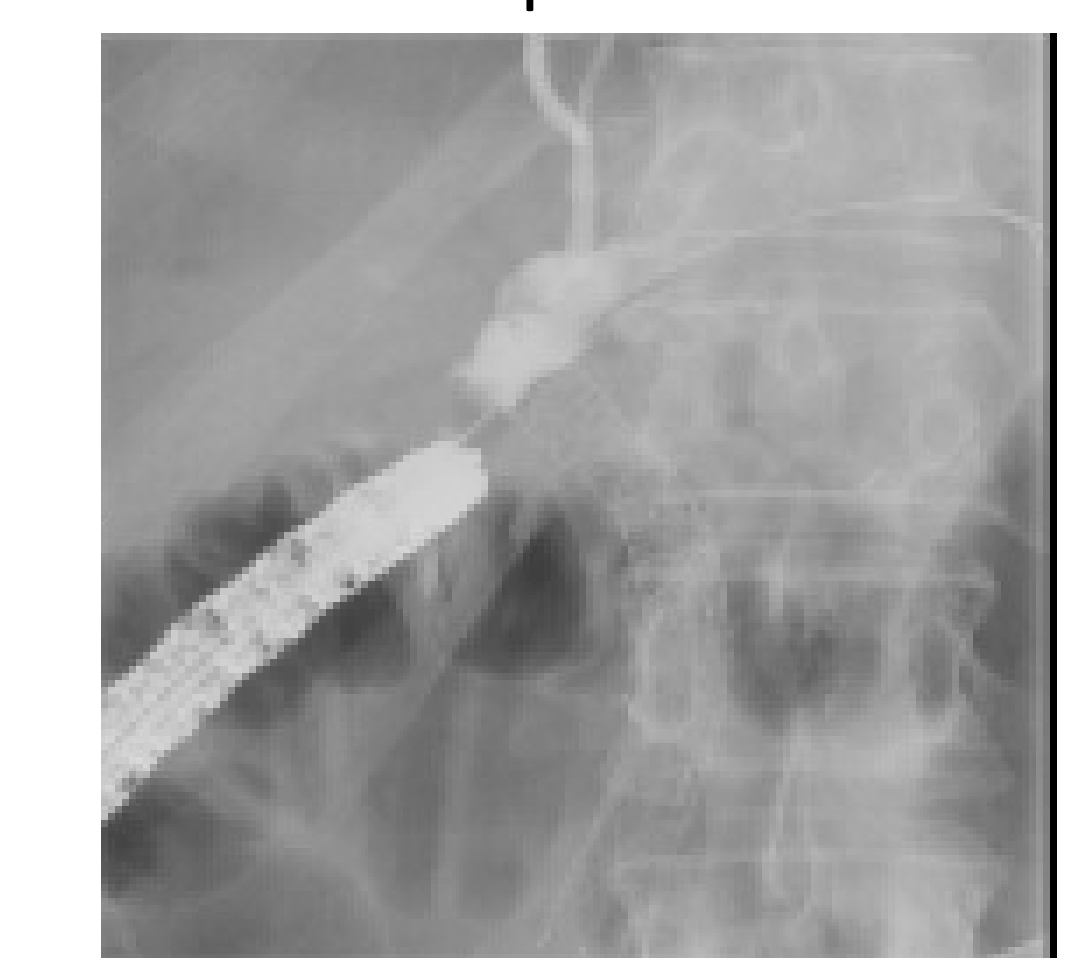


Figure 2. Cholangiogram with rigidizing overtube in place



Conclusions

Use of the Pathfinder rigidizing overtube can improve technical success and clinical success in post-PD altered anatomy ERCPs without further risk of adverse effects.

RO aids in post-PD altered anatomy by providing scope stabilization and prevention of looping.

Larger studies are necessary to determine the utility of RO use in altered anatomy ERCPs without increased risk of adverse effects.

Contact

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