

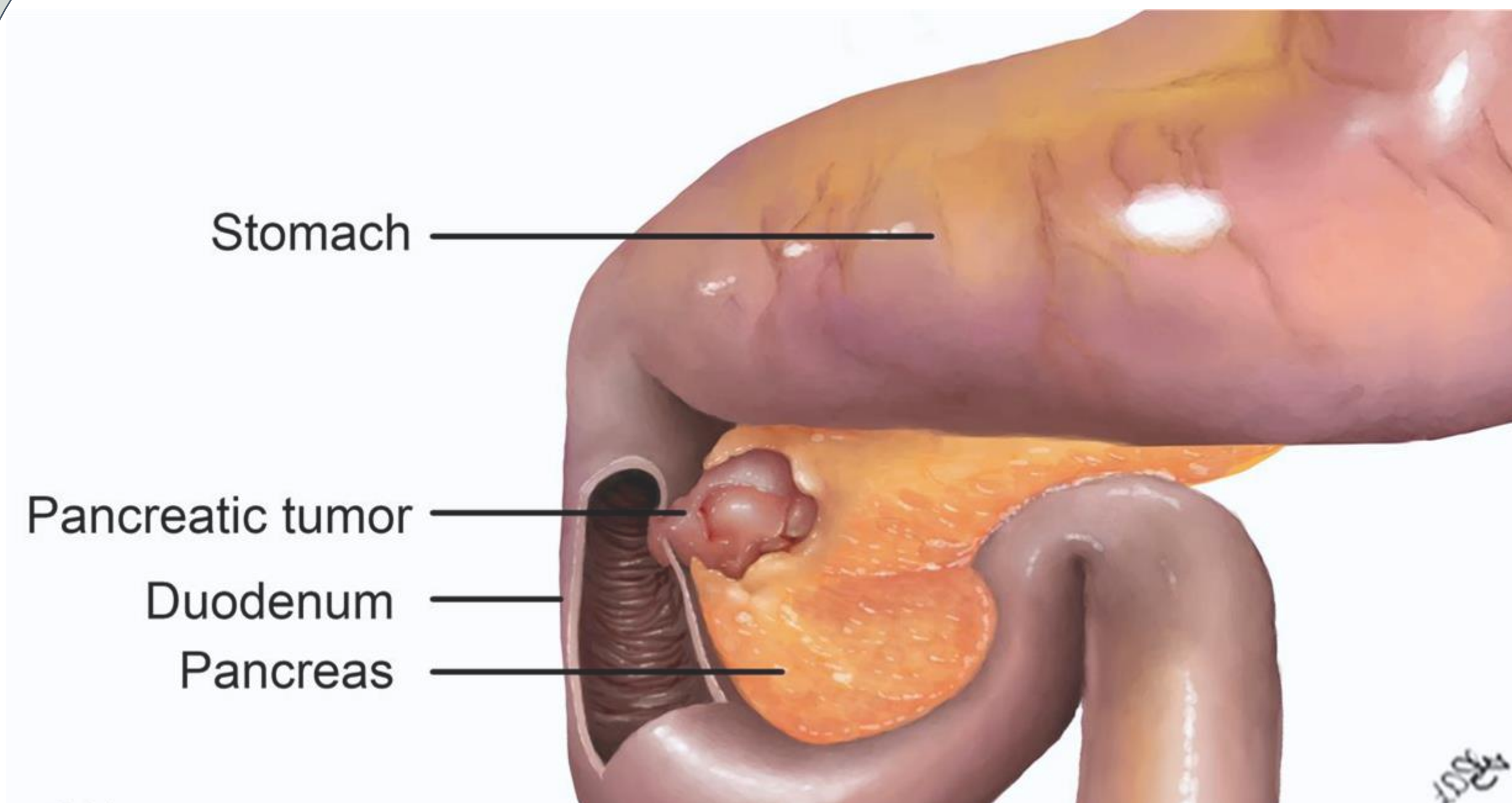


Enteral Isolation Device: Providing a safer way to achieve lasting outcomes for Malignant Gastric Outlet Obstruction (MGOO) Treatment

Bethany Hall, Brendan Lin, Dhruv Atri, Trevor Huffaker



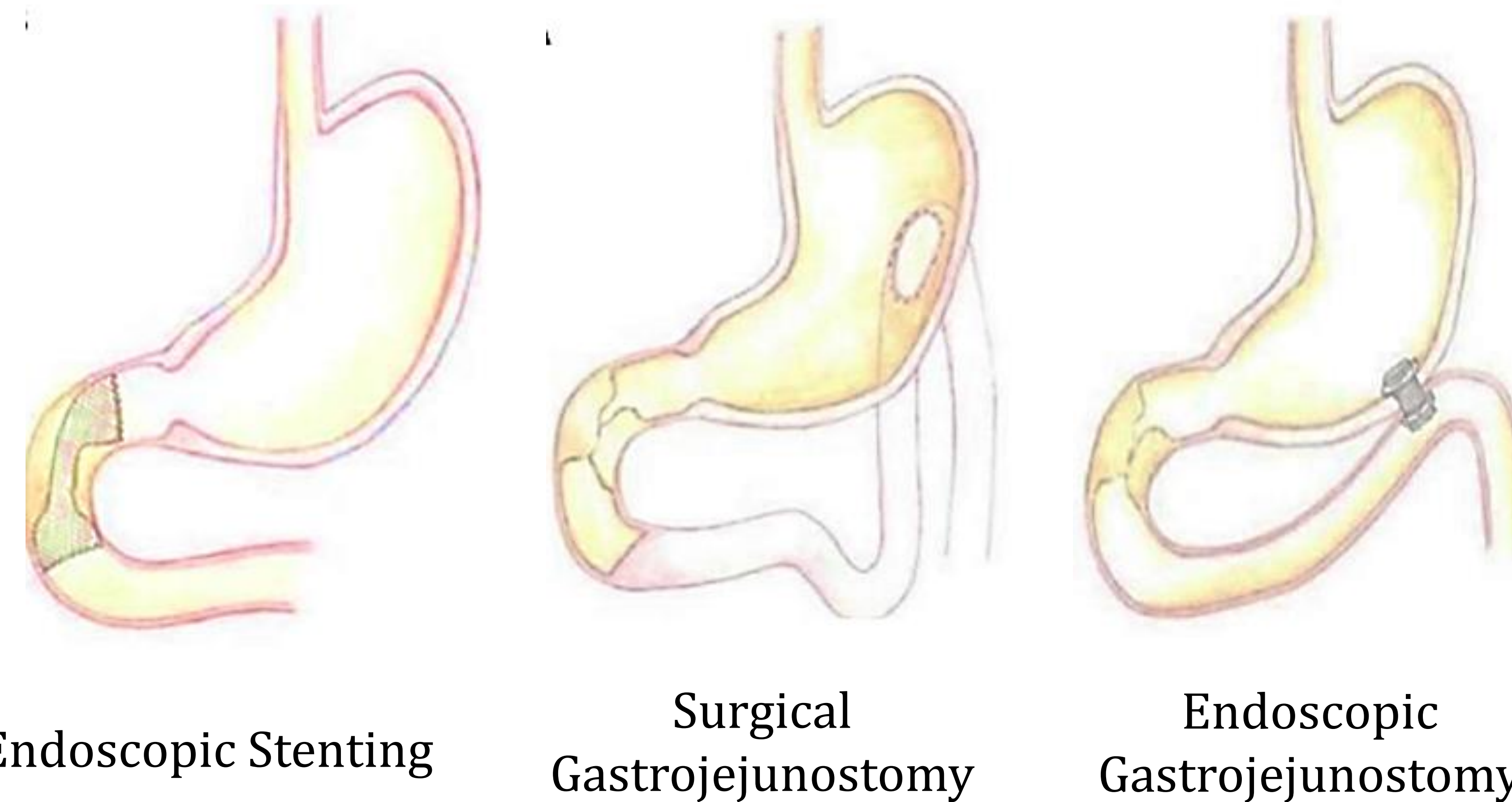
MGOO



[1] Pancreatic cancer. Pancreatic Cancer - Oncology - Medbullets Step 2/3. (n.d.). Retrieved December 6, 2021, from <https://step2.medbullets.com/oncology/120443/pancreatic-cancer>.

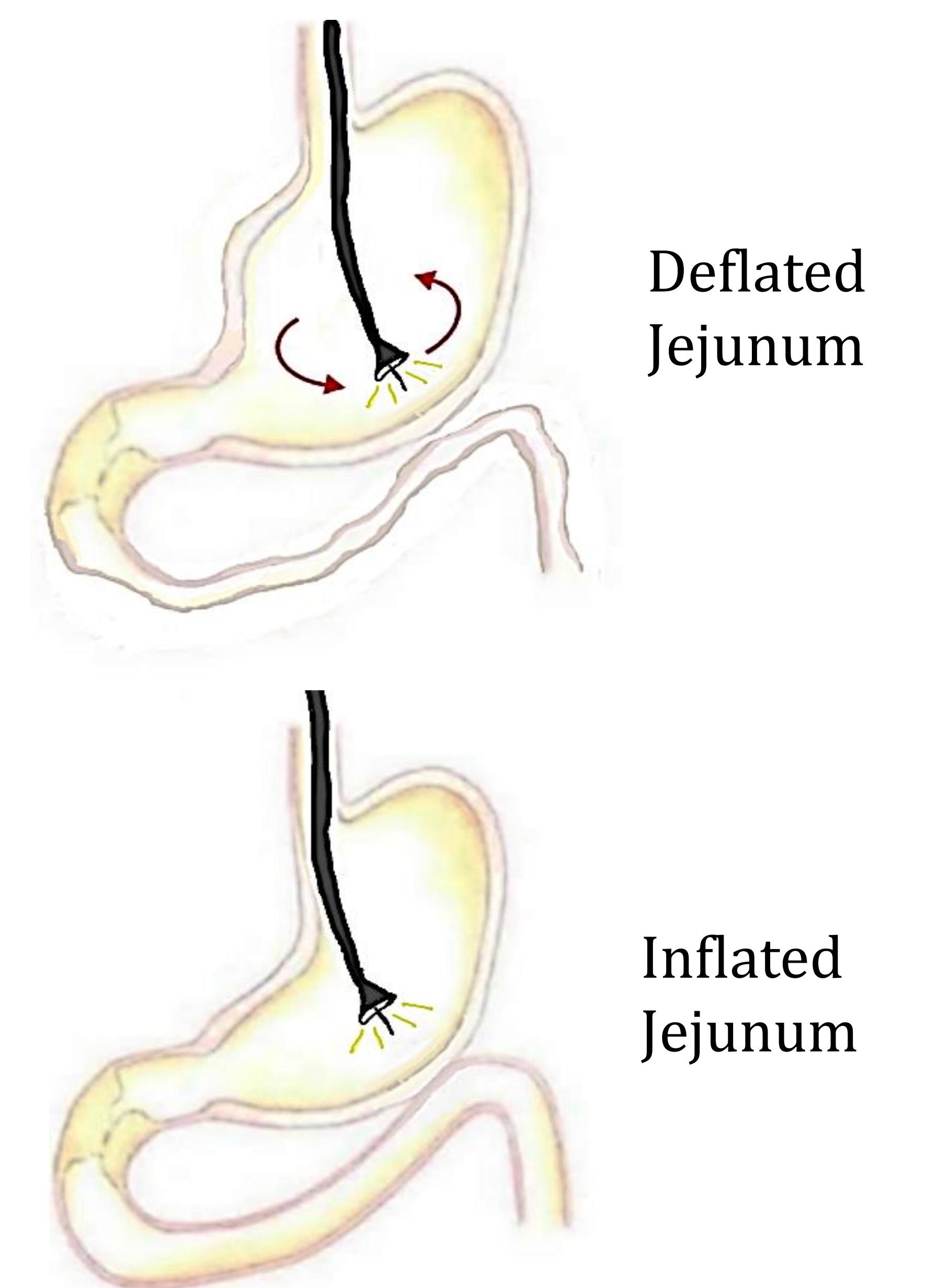
- 6 month mean survival from MGGO symptom onset
- 60,000 individuals in U.S. develop pancreatic cancer each year
- 1 in 4 pancreatic patients experience MGGO
- Symptoms include nausea, vomiting, weight loss, malnutrition, pain, and dehydration

CURRENT TREATMENT OPTIONS



[2] Trancone, Edoardo et al. "Malignant gastric outlet obstruction: Which is the best therapeutic option?" World journal of gastroenterology vol. 26,16 (2020): 1847-1860. doi:10.3748/wjg.v26.i16.1847

IMPROVED EUS-GJ



Future Goals

- Improve technical success rate of EUS-GJ to 90%
- Getting 75% of all stenting and surgical gastrojejunostomy procedures

MARKET ANALYSIS



*Numbers are calculated with the cost of our device being \$500

TREATMENT COMPARISON

| | Endoscopic Stenting (85%) | Surgical GJ (12%) | Endoscopic GJ (3%) |
|------------------------------------|------------------------------|----------------------|-----------------------|
| Average length of stay in hospital | 1 days | 21 days | 1-2 days |
| Reoperation rate | 20-30% | 7% | 3% |
| Adverse events | 40% | 41% | 16% |
| Technical success rate | 90% | 100% | 60% |
| Clinical success rate | 76% | 94% | 87% |
| Procedure Cost | \$8,819 | \$12,433 | \$4,905 |

[3] Stefanovic S, Draganov PV, Yang D. Endoscopic ultrasound guided gastrojejunostomy for gastric outlet obstruction. *World J Gastrointest Surg* 2021; 13(7): 620-632 [PMID: 34354796 DOI: 10.4240/wjgs.v13.i7.620]

[4] Tang, S-J. "Endoscopic Stent Placement for Gastric Outlet Obstruction." *Video Journal and Encyclopedia of GI Endoscopy*, Elsevier, 12 June 2013, <https://www.sciencedirect.com/science/article/pii/S2212097113700578>.

[5] Zhang, Linda P et al. "Laparoscopic gastrojejunostomy for the treatment of gastric outlet obstruction." *JSL: Journal of the Society of Laparoendoscopic Surgeons* vol. 15,2 (2011): 169-73. doi:10.4293/108680811X13022985132074

CONTACTS

Dr. Craig Munroe

- Email: craig.munroe@ucsf.edu

MTM Capstone Team:

- Bethany Hall: beth_hall@berkeley.edu
- Brendan Lin: lin_brendan@berkeley.edu
- Dhruv Atri: dhruvatri@berkeley.edu
- Trevor Huffaker: thuffaker@berkeley.edu