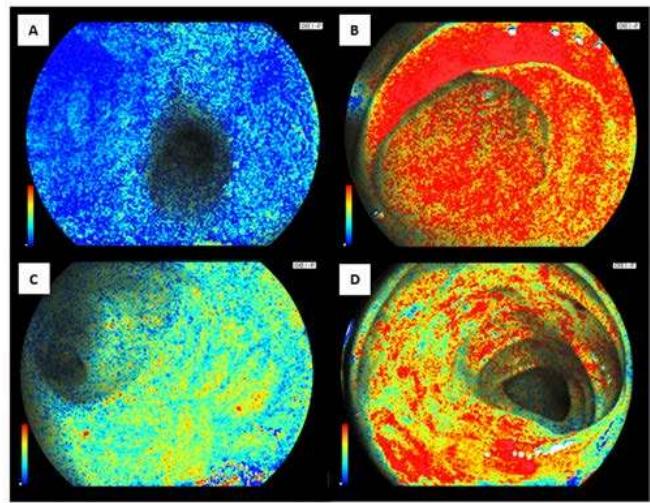


79 procedures (53 EGDs, 26 colonoscopies) were performed, with 12 patients undergoing both upper and lower GI endoscopy. Only StO_2 readings associated with endoscopically or biopsy-proven normal tissues were analyzed. Mean StO_2 was 31.7% (95% Confidence Interval: 26.0-37.5) in the distal esophagus, 92.6% (89.4-95.4) in the fundus, 88.1% (82.7-92.8) in the antrum, and 78.5% (72.7-84.2) in the duodenal bulb (Table). Paired t-tests showed statistically significant differences between distal esophagus and fundus, antrum, and duodenal bulb (all p -values <0.001), between duodenal bulb and fundus ($p=0.001$) and antrum ($p=0.02$), but no significant difference between fundus and antrum ($p=0.12$). Mean StO_2 was 84.5% (77.4-90.6) in the cecum, 70.1% (62.9-76.8) in the transverse colon, and 57.9% (49.7-66.6) in the sigmoid colon. All p -values were <0.05 (Table). No differences were seen for sex, race, and age ($p>0.05$). Conclusion: In this study we report normal ranges of mucosal oxygenation of the GI tract, highlighting significant regional differences, with the lowest StO_2 levels in the esophagus and in the sigmoid colon. These differences are likely explained by relative variations in arteriovenous circulation. Deviations from these values may represent pathological states and may have implications on clinical endpoints such as symptoms, surgical outcomes, and future therapies.

Figure 1. Typical heatmap appearance of different anatomical regions



A: Distal Esophagus; B: Gastric Antrum; C: Sigmoid colon; D: Transverse colon

Table 1. Normal range of StO_2 in different regions and comparison with paired t-tests

1a. Normal ranges of StO_2 (means and 95% Confidence Intervals)

Anatomical Region	Mean StO_2 (%)	95% Confidence Interval
Distal Esophagus	31.69	25.97-37.49
Gastric Fundus	92.56	89.38-95.43
Gastric Antrum	88.13	82.71-92.78
Duodenal Bulb	78.48	72.66-84.16
Cecum	84.53	77.42-90.64
Transverse Colon	70.08	62.94-76.84
Sigmoid Colon	57.89	49.69-66.61

1b. P-values for paired comparisons (t-tests)

	Distal Esophagus	Gastric Fundus	Gastric Antrum	Duodenal Bulb
Distal Esophagus	-	< 0.001	< 0.001	< 0.001
Gastric Fundus	< 0.001	-	0.122	0.001
Gastric Antrum	< 0.001	0.122	-	0.016
Duodenal Bulb	< 0.001	0.001	0.016	-
	Cecum	Transverse Colon	Sigmoid Colon	
Cecum	-	0.001	< 0.001	
Transverse Colon	0.001	-	0.004	
Sigmoid Colon	< 0.001	0.004	-	

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Advances in Therapeutic Endoscopy: A Potpourri

PORTABLE DISPOSABLE GASTROINTESTINAL ENDOSCOPES FOR GASTROINTESTINAL BLEEDING AT THE EMERGENCY BEDSIDE: A PROSPECTIVE RANDOMIZED NON-INFERIORITY TRIAL



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Objective: The portable disposable gastrointestinal endoscope system is a new type of internal device that is highly portable and can perform endoscopy without waiting for preoperative infectious testing, while eliminating the risk of cross-infection caused by repeated use. The purpose of this study was to investigate the feasibility and safety of this type of gastrointestinal endoscopy in the application of gastrointestinal bleeding at the emergency bedside. Methods: This is a single-center, controlled study that collects data from patients who underwent emergency bedside gastrointestinal endoscopy for gastrointestinal bleeding at the Strategic Support Team Specialty Medical Center from 04 to 06 2023. Patients were randomly assigned to use portable portable disposable gastrointestinal endoscopy and Pentax endoscope. The success rate of all endoscopic techniques, clinical operability, image quality score, equipment preparation time, operation time, equipment death or death rate, and adverse event incidence were recorded. Results: A total of 42 patients were included, including 21 cases of portable disposable gastrointestinal endoscope and traditional gastrointestinal endoscope, and there were no significant differences in age, gender and mean hemoglobin concentration in the two groups ($P>0.05$). The success rate of endoscopy in both groups was 95.2%, and there was no statistical significance in terms of clinical operability, image quality score, incidence of equipment or death, and incidence of adverse events ($P>0.05$). Compared with traditional endoscopes, the portable disposable gastrointestinal endoscope was significantly shortened ($P<0.05$) in terms of equipment preparation time and transportation time, and there was no need for subsequent decontamination endoscopes. Conclusion: The portable disposable gastrointestinal endoscope is safe and feasible, its operation performance and acquisition image quality are good, it is easy to transport, shorten the preparation and transportation time of emergency bedside gastrointestinal endoscopy, and save labor costs. Disposable portable gastrointestinal endoscopy at the emergency bedside may be a viable alternative to traditional gastrointestinal endoscopy. Keywords: Emergency bedside; Portable disposable gastrointestinal endoscopy; gastrointestinal bleeding.

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PRIMARY PROPHYLAXIS OF GASTRIC VARICEAL BLEEDING: DOES IT MATTER? A SINGLE CENTER EXPERIENCE



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Background: Gastric variceal bleeding occurs in 10-36% and is a life-threatening condition with a high mortality rate up to 20%. The role of primary prophylaxis of gastric variceal bleeding has not been established. The aim of our study was to evaluate the efficacy and safety of different treatment methods for the primary prophylaxis for gastric variceal bleeding. Methods: A single center retrospective observational study evaluating patients with cardio-fundal gastric varices (GOV2 and IGV1) without prior bleeding between August 2016 and September 2022 were included. Patients were divided into four treatment groups: non-selective beta-blocker, endoscopic glue injection, EUS guided coil and glue injection, and observation without intervention. The primary outcome was bleeding from gastric varices on follow up. The secondary outcome was to assess any procedure-related complications. A descriptive analysis was performed with a Chi-square test for the distribution of bleeding among patients according to treatment. Logistic regression was conducted to calculate the odds ratio (OR) and 95% confidence intervals (CI) to estimate the effect of treatment on bleeding. Results: A total of 252 patients with gastric varices were followed during the time. Patients were classified based on their treatment approaches: 26 patients