

Same-day Bidirectional Endoscopy: Patients or Practice?



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Background

A subset of patients undergo both EGD and colonoscopy on the same day (bidirectional endoscopy or BDE). Although no clear guidelines exist, same-day bidirectional endoscopy has been recommended for patients with anemia or positive fecal occult blood test (FOBT). In a recent study (Urquhart et al, 2009) bidirectional endoscopy revealed important pathology in patients with anemia or positive FOBT. Patients with pain had a lower prevalence of serious findings compared to the other groups studied. It was concluded that the benefits of BDE in patients with pain are uncertain and require additional investigation.

Purpose

This study was designed to determine whether the decision to perform both procedures during the same session is related to the indications for the examination or to different gastroenterologists' practice patterns.

Study Setting

Miraca Research Institute, part of Miraca Life Sciences, is a specialized gastrointestinal pathology laboratory that receives specimens from gastroenterologists operating in private outpatient endoscopy and surgery centers across the U.S. All demographic, histopathologic, endoscopic, and clinical information is stored in a searchable SQL database.

Patients and Controls

We queried the database to extract all patients who had a colonoscopy, an EGD, or a bidirectional endoscopy from 1.1.2008 through 12.31.2011. Patient-related analysis focused on demographics, clinical indications for the procedures (GERD, dyspepsia, dysphagia, anemia, abdominal pain, diarrhea, and weight loss) and histopathologic findings (*H. pylori*-gastritis, celiac sprue, active colitis, IBD, and microscopic colitis). Provider-related analysis focused on the volume and geographic location of each practice group.

Results

The analysis included 543,319 patients (median age 57 years; 61% female) who had only EGD, 799,690 patients (median age 60 years; 50% female) with only colonoscopy, and 139,662 patients (median age 58 years; 58% female) who had a same-day bidirectional procedure.

Procedure	Anemia	Diarrhea	Abdominal pain	Weight loss
EGD only (n = 543,319)	7.3%	3.3%	36.3%	4.3%
Colonoscopy only (n = 799,690)	2.4%	10.9%	9.7%	1.3%
Bidirectional endoscopy (n = 139,662)	12.1%	20.3%	33.8%	5.8%

Table 1, above, shows indications that are significantly associated with bidirectional endoscopy. These included diarrhea (20.3 % vs. 10.9% in patients with only colonoscopy, OR 2.07 95%Cl 2.04-2.10 p<0.0001; and vs. 3.3% in patients with only EGD, OR 7.49 95%Cl 7.34-7.64 p<0.0001); anemia (12.1% vs. 2.4% in patients with only colonoscopy, OR 5.57 95%Cl 5.45-5.69 p<0.0001; and vs. 7.3% in patients with only EGD, OR 1.74 95%Cl 1.70-1.77 p<0.0001) and weight loss (5.8% vs. 1.3% in patients with only colonoscopy, OR 4.60 95%Cl 4.47-4.70 p<0.0001; and vs. 4.3% in patients with only EGD, OR 1.35 95%Cl 1.32-1.39 p<0.0001). As expected, dysphagia and dyspepsia were significantly less common indications in patients who had bidirectional procedures; GERD, however, was equally common in the EGD-only and the bidirectional group (data not shown). Histopathologic findings did not differ significantly amongst the groups, except for colon adenomas, much less frequent in the bidirectional than in the colon-only group.

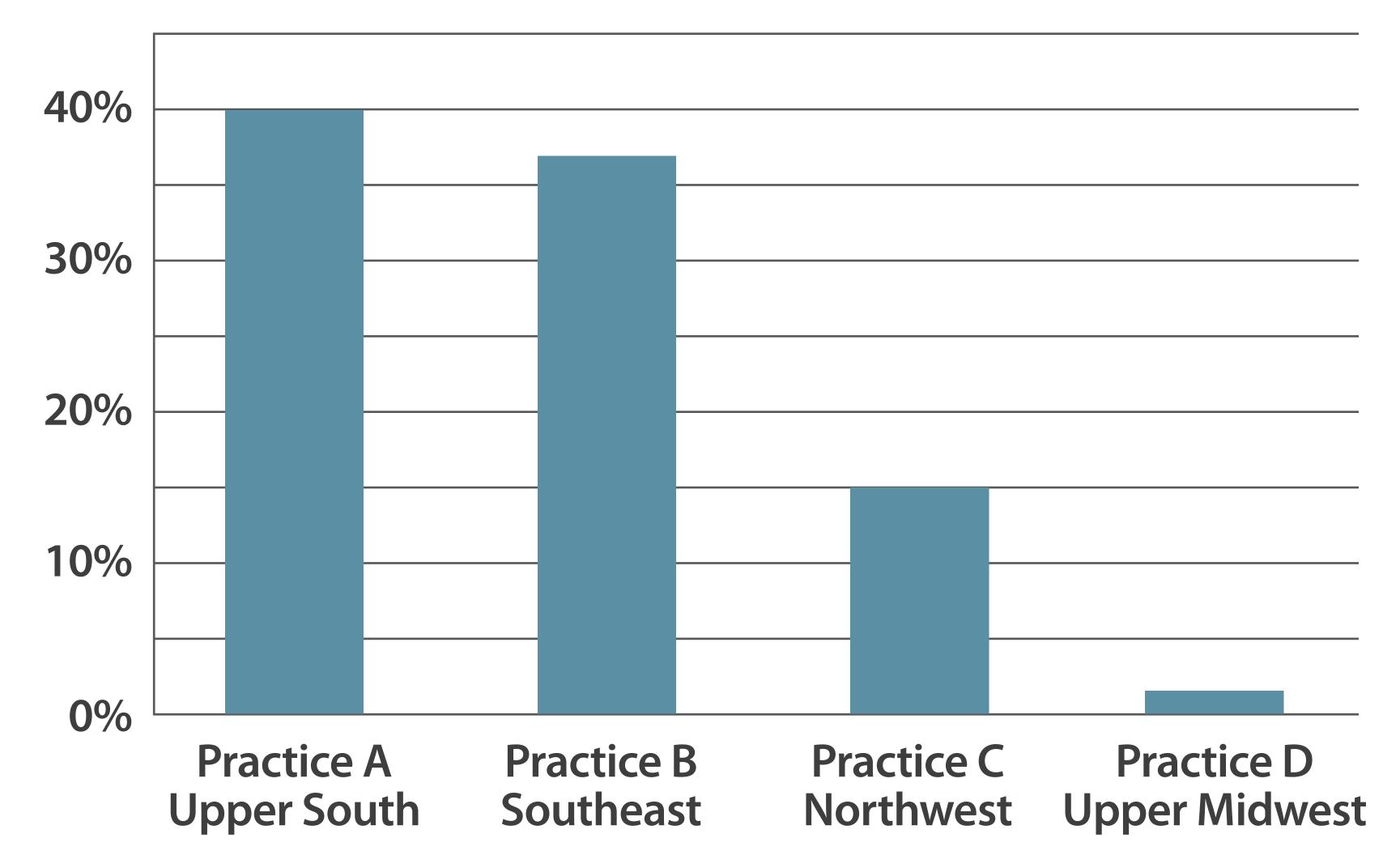


Table 2, above, illustrates that amongst endoscopy centers that contributed at least 5,000 patients each to the database, the proportion of bidirectional procedures (expressed as percentage of all colonoscopies) varied between 0.9% and 40.5%. There was no correlation between practice volume and the proportion of bidirectional procedures performed. On a geographic basis, the rate of bidirectional procedures varied from 11.2% in the Northeast to 17.1% in the Midwest.

Study Highlights

- The decision to perform a same-day bidirectional endoscopy was strongly influenced by patients' presenting symptoms but not by their age or gender.
- Practice patterns exhibited wide individual variations, but was unrelated to practice volume.
- Histopathologic findings did not differ significantly amongst the groups, except for colon adenomas, much less frequent in the bidirectional than in the colon-only group.

References

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