Proximal Sessile Polyps: Raised Expectations for the Detection of Flat Lesions

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Although the use of colonoscopic screening programs has decreased the incidence of colorectal cancer and increased diagnoses of early stage disease [1], the benefit of screening in the prevention or early identification of disease in the proximal colon is inferior to that seen in the distal colon [2]. The efficacy of screening colonoscopy programs relies heavily on the skill of the endoscopist—both technically with respect to the ability to traverse and examine the entire colon, and the ability to accurately identify problematic lesions when present.

Serrated polyps are a particular subset of colonic lesions that have garnered increased attention in recent decades. The serrated pathway toward malignant transformation is associated with hypermethylation of CpG islands and *BRAF* mutations. Serrated polyps are now thought to be responsible for > 15% of all colorectal cancers and significant contributors to the incidence of interval cancers [3, 4]. Despite the increasing awareness of these polyps and the importance of their detection for cancer prevention, the identification of such lesions can be difficult since proximal serrated polyps are often flat and have indistinct borders [3]. As such, the current literature reflects a wide range of proximal serrated polyp detection rates (PSPDR) between endoscopists, with a heterogeneous body of literature with respect to the factors that may affect PSPDR detection variance.

In this issue of *Digestive Diseases and Sciences*, Mandalia et al. [5] compare the rate of proximal serrated polyp detection in three different groups of physicians performing screening colonoscopies: academic gastroenterologists,

community gastroenterologists, and colorectal surgeons. In this single-institution retrospective review, all complete screening colonoscopies were performed on patients > age 50 with good or excellent bowel preparation performed by 18 endoscopists between July 2015 and December 2017. A total of 2850 screening colonoscopies were included; the majority (53.4%) were performed by six academic gastroenterologists, whereas 32.2% were performed by seven community gastroenterologists, and only 14.4% were performed by five colorectal surgeons. The authors found that academic gastroenterologists had significantly higher detection rates of both proximal serrated polyps and of sessile serrated adenomas, despite all three groups of endoscopists having no significant difference in the de facto standard for endoscopic quality, namely adenoma detection rates (ADR) (Table 1).

While this manuscript is the first to compare the detection rate of proximal serrated polyps between these three specific groups of physicians who perform screening colonoscopies, prior studies have evaluated the effect of different endoscopist characteristics on PSPDR with mixed results. For example, Sanaka et al. examined the differences in PSPDR among gastroenterologists, colorectal surgeons, and other endoscopists (primary care physicians/general surgeons). While they found no significant difference in PSPDR among groups of endoscopists, they did similarly report a wide variability in detection rates amid individual endoscopists [6]. In an evaluation of endoscopist characteristics and their effects on PSPDR, Sarvepalli et al. [4] found in multivariate analysis, adjusting for patient and procedural factors, that the only significant factors affecting PSPDR were the length of time since completing training and annual colonoscopy volume—physician specialty—also had no significant effect. In contrast, Parikh et al. [7] demonstrated that in the adjusted analysis, gastroenterologists had significantly higher PSPDR compared to non-gastroenterologists for screening colonoscopies. Importantly, prior studies compare cohorts of endoscopists that are more mixed—often combining general surgeons and colorectal surgeons, or all

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Table 1 Mean detection rates by endoscopist role (from [5])

	Academic gastroenterologists (n = 6)	Community gastroenterologists (n = 7)	Colorectal surgeons (n = 5)	P value
Adenoma detection rate (ADR)	40.3% (31.2–49.5)	36.0% (30.0–44.4)	39.6% (30.37–48.83)	0.62
Proximal adenoma detection rate (PADR)	35.6% (12.7–58.6)	24% (14.6–33.3)	31.4% (18.9–43.8)	0.28
Sessile serrated adenoma detection rate (SSADR)	3.8% (2.04–5.52)	0.8% (0.03–1.63)	0.8% (1.03–2.63)	0.002
Proximal serrated polyp detection rate (PSPDR)	12.3% (7.04–17.42)	5.4% (.03–8.74)	4.5% (1.79–7.2)	0.007

non-gastroenterologists into a single group. Although the authors of the current study appropriately separate their endoscopists into three groups which may differ in training background, volume, and practice locations, their analysis is limited in that they did not adjust for other procedural or patient characteristics [5].

Many of these prior studies are limited by having data restricted to that of a single institution; this study is no different [5]. This is an important factor when considering the results of this study as it has been previously shown that there is wide variability on PSPDR at the endoscopy center level, suggesting that practice culture of an individual institution or education curriculum may impact the standard practices of its endoscopists [8]. Nonetheless, it also suggests that endoscopy center or program-based education may be effective. Although changes in attitudes toward recognizing the importance of proximal serrated polyps and colorectal cancer have led to the introduction of consensus guidelines regarding serrated polyps as recently as 2012, translation into practice may be lagging [9]. The authors of this paper suggest a minimum PSPDR of 9% based on the current literature as a benchmark metric, which many endoscopists fall below in the current literature [5]. While evidence-based benchmarks are important, equally important are suggestions on how to raise the standards of the national colonoscopy community to a new designated level. One step may be to widely develop endoscopy center or institutionally based educational programs; promisingly, Li et al. found that after one didactic education session focused on the identification and removal of sessile serrated polyps, gastroenterologists were able to significantly increase their PSPDR [10].

In conclusion, Mandaliya et al. [5] have shown that there is a significant difference in the PSPDR among academic gastroenterologists, community gastroenterologists, and colorectal surgeons. Their findings, in the context of the existing literature, suggest that the low and variable PSPDR among endoscopists is likely a result of a combination of differences in training, practice volume, and continuing education. It also highlights the need for future studies that identify effective tools or educational programs that can increase the average PSPDR among all endoscopists, especially those

located in rural and community settings that provide services to patients with limited access to medical specialists.

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