Effect of Annual Colonoscopy Volume and Years in Practice on Polyp Detection and Removal

To the Editor:

I read with great interest the article by Ko et al[1] published in a recent issue of *The American Journal of Medicine*. The authors are certainly to be commended for highlighting significant predictors of polyp detection, polyp removal, and diagnostic biopsy, which have important implications for the effectiveness of colonoscopy.

The authors conclude that their findings suggest that very low colonoscopy volumes may be associated with suboptimal detection of colorectal pathology.[1] However, polyp detection and removal results also were similar (and suboptimal) for very high-volume providers. The authors report a complex relationship between annual colonoscopy volume and their outcome measures, with overall polyp detection and removal significantly more likely for moderate-volume providers compared with very high- or low-volume providers.[1] One possibility, as stated by the authors, is shorter withdrawal time for high-volume providers, leading to a lower likelihood of polyp detection.[1] The authors found that gastroenterologists had the highest median annual colonoscopy volume, and yet, had significantly higher polyp detection and removal rates compared with the nongastroenterologists.[1] This is contrary to their finding that highest-volume providers had lower polyp detection and removal rates compared with moderate-volume providers. Even other studies have found no correlation between incidence of interval colorectal cancer after negative colonoscopy and annual colonoscopy volume.[2,3] However, these studies also found nongastroenterologists to have a higher risk of interval colorectal cancer after negative colonoscopy.[2,3] It would be interesting to study the affect of colonoscopy volume for each specialty separately.

Another surprising observation was that the likelihood of polyp detection and removal was inversely related to physician years in practice.[1] One would expect a higher rate of polyp detection and removal with increasing years of experience in performing colonoscopy. As the authors suggested, it might be possible that more experienced colonoscopists would be more experienced in identifying hyperplastic polyps and not removing them, accounting for a lower polyp removal rate.[1] Although this could affect the polyp removal rate, this should not affect the polyp detection rate or the adenoma detection rate (ADR). Kaminski et al[4] also found a similar relation between ADR and colonoscopic experience. Compared with colonoscopists with more than 10 years of experience, colonoscopists with less than 5 years of experience were significantly more likely to have ADR $\geq 15\%$ (23% vs 47%, respectively; $P = .006$), and less likely to have ADR $< 15\%$ (77% vs 52%, respectively; $P = .006$) and ADR $< 11\%$ (53% vs 30%, respectively; $P = .02$).[4]

The reasons for these unexpected but consistent findings across different studies are unclear. Further studies are needed to better understand these factors and complex interplay between them, and to identify the mechanisms for these differences.

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