Sigmoidoscopy Versus Colonoscopy: Ask Yourself

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In this issue of *Family Medicine*, Thad Wilkins, MD, and his colleagues at the Medical College of Georgia report on their national survey of the state of flexible sigmoidoscopy training in family medicine residency programs. Their report is useful, in that the authors found that most programs are still offering such training. The question I wish to raise in this editorial is: Why are any of our residency programs training residents to perform flexible sigmoidoscopy?

I support the notion that family physicians should be “full-service physicians” who are active in the hospital, active in the labor and delivery suite, and perform a variety of procedures in the office and hospital. I have written articles and editorials on that very topic. In the past, when sigmoidoscopy was accepted as the test of choice for colorectal cancer screening, I performed many flexible sigmoidoscopy examinations.

But, I don’t think the “future of family medicine” will be very bright if we are training family physicians to perform obsolete procedures or procedures on the verge of becoming obsolete. Yet, that is just what we are doing when we put our training resources into teaching residents to perform flexible sigmoidoscopy as a screening test for colorectal cancer. Colonoscopy, not sigmoidoscopy, is the current preferred screening test for this purpose.

Why Is Colonoscopy the Better Choice?

Numerous studies have shown that colonoscopy is more accurate than sigmoidoscopy when used as a screening test for colorectal neoplasia. Colonoscopy finds lesions that are missed by sigmoidoscopy (sigmoidoscopy misses about half of neoplastic lesions), especially those in the right colon that cannot be visualized through a sigmoidoscope. Colonoscopy is also more accurate than air-contrast barium enema, which identifies fewer than half of the polyps seen on colonoscopy.

Colonoscopy permits definitive treatment of small lesions with polypectomy at the time they are visualized, and biopsy of larger ones, while lesions seen with sigmoidoscopy typically require patients to undergo a repeat examination with colonoscopy for removal or biopsy of lesions. And, despite the need for sedation during colonoscopy, colonoscopy is not significantly more risky than sigmoidoscopy, especially if sigmoidoscopy identifies abnormalities that require a subsequent colonoscopy or if sigmoidoscopy is performed by individuals with limited experience.

Arguments for and Against Sigmoidoscopy

A variety of reasons are cited for continuing to perform flexible sigmoidoscopy. In my opinion, however, none of those reasons hold water. They certainly don’t justify teaching our residents to perform a screening test for colon cancer that fails to examine half the colon.

Some argue that flexible sigmoidoscopy is less expensive than colonoscopy. Lower cost, however, does not make it the preferred test. If cost were the determining factor, we would still be trying to diagnose ureteral stones with plain KUB X rays instead of computerized tomography (CT). CT is more expensive, but it is the test of choice because it is more accurate, just as colonoscopy is the test of choice for colon cancer screening because it is more accurate—even though it is more expensive.

Some argue that bowel preparation for sigmoidoscopy is easier and less unpleasant than the preparation needed for colonoscopy. But, a less unpleasant prep does not make sigmoidoscopy the test of choice. If pleasantness was the determining factor, we would not ask patients to undergo an overnight fast before drawing blood to measure glucose and lipid levels. We would settle for the inaccurate results from non-fasting blood tests instead. We don’t do that, however, any more than we should perform and accept the less-accurate results from sigmoidoscopy just because the sigmoidoscopy prep is less unpleasant.
Others say that the sedation needed for colonoscopy is disruptive to patients, requiring them to lose time from work and make special transportation arrangements, and that these inconveniences may steer some patients away from the procedure. But, less schedule disruptions don’t make sigmoidoscopy the test of choice. To use another example, it would be less disruptive and easier for patients with chest pain if we excluded the diagnosis of coronary artery disease by history or electrocardiography instead of having them spend days in the hospital for often negative, but more accurate, “rule-out” protocols or by having them devote the time necessary to deal with cardiac stress tests and/or coronary angiograms to clarify their diagnosis. But, inconvenience and schedule disruption don’t mitigate the importance of obtaining the more accurate tests, so the more sophisticated diagnostic modalities—which cost more, are less pleasant, and are more disruptive—are the modalities of choice.

Finally, many have pointed out that there are not enough trained colonoscopists to perform screening examinations on all eligible patients. Indeed, that lack of a sufficient number of colonoscopists, and not any equivalency between sigmoidoscopy and colonoscopy, is the primary reason why many professional organizations still list sigmoidoscopy as an option for cancer screening. However, the lack of trained colonoscopists does not mean we should encourage family physicians to perform sigmoidoscopy. If anything, we should encourage them to learn colonoscopy! The American Academy of Family Physicians has recognized this fact, having abandoned sigmoidoscopy training at its Annual Scientific Assembly and replaced it with colonoscopy workshops. Why hasn’t this approach been adopted in residency programs?

The emphasis on sigmoidoscopy is, in my opinion, even more misplaced when one considers that the future of colorectal cancer screening may lie with techniques like radiographic “virtual colonoscopy,” fecal DNA tests, ultra-thin colonoscopy that can be performed without sedation, or other technologies yet to be developed. Teaching residents to perform sigmoidoscopy does not prepare them for that future; it prepares them for the past.

**Ask Yourself**

Perhaps the true test of which is the better test is to ask yourself the following question. Would you opt for a sigmoidoscopy rather than a colonoscopy for yourself or your family members when colorectal cancer screening begins at age 50? My guess is that almost no one reading this editorial would do this. If this is the case, why would we recommend or perform a sigmoidoscopy on our patients? And, why would we be training our residents to do so?

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**REFERENCES**