

Learning Flexible Endoscopy Critical for Surgical Fellows

BY PRAKASH GATTA, MD



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I entered my fellowship primarily because of my interest in advanced laparoscopy. As a product of a busy community-based surgical residency, I had performed my share of endoscopies. My fellowship match emphasized flexible endoscopy as a vital component of minimally invasive surgery (MIS) training; however, I was surprised by the complexity of the procedure and its importance in today's clinical practice. With minimally invasive approaches for commonly performed surgical procedures steadily gaining acceptance, innovative centers have turned again to endoscopy in order to perform advanced procedures. Today, natural orifice transluminal endoscopic surgery (NOTES) may represent a revolution in MIS.

The pioneers of the surgical endoscopy field have largely been responsible for writing laparoscopy's short history. Early pioneers of laparoscopy tended to be advocates of flexible endoscopy. Surgeons who promoted flexible endoscopy founded the Society of American Gastrointestinal and Endoscopic Surgeons, and today the group is the major representative body for laparoscopic surgeons. MIS fellowships first appeared in the early 1990s and continue to stress the importance of flexible endoscopy because laparoscopy is considered a derivative of flexible endoscopy.

A survey of current MIS fellowships showed that only a handful of fellowships include flexible endoscopy as a significant percentage of their case logs. The majority of fellowships have some exposure to MIS, but some show none at all. The American Board of Surgery (ABS), however, has now raised the minimum number of endoscopies required for one to sit for the qualifying exam, placing a renewed emphasis on this fundamental training.

It is unfortunate that some programs shy away from teaching flexible endoscopy because there is accumulating evidence of its importance as a surgical tool. Clear indications of this include changing ABS requirements, documentation of a surgeon's competency in flexible endoscopy, the possibility that endoscopy may account for up to half of a practicing surgeon's case volume and the NOTES revolution.

A recent study on the effect of endoscopy on general surgical practice

shows that the procedure contributes significantly to higher revenue and an increased caseload. Performing endoscopies helps increase the volume of the surgical practice by diagnosing new lesions (i.e., colon polyps suspicious for cancer, etc.). Also, postoperatively, surveillance endoscopies must be performed and the surgeon can also do these. In recent years, however, surgeons have left diagnostic endoscopy largely to gastroenterologists—primarily because of concerns over referral patterns. Performing gastrointestinal (GI) surgery while leaving endoscopy to someone else strikes me as distinctly unfair to the patient: Well-publicized reports of wrong-site colon resections or esophagectomies being performed on the wrong patients reinforce this point. Not performing an endoscopy on a patient headed for major GI surgery is like a vascular surgeon performing a bypass without first doing an angiography.

As early as 1994, it was found that for those more interested in an academic career, endoscopic fellowships facilitated subsequent academic and educational activities and helped foster surgical practices oriented toward GI disease.

Surgical residency will continue to evolve. Minimally invasive techniques may account for a large percentage of cases in the foreseeable future. However, the direction MIS will take is unclear. With the advent of newer endoscopic technologies, MIS on an endoscopic platform has arrived. NOTES has heralded the dawn of an exciting, innovative new approach to surgery. Both minimally invasive GI surgeons and aggressive gastroenterologists have embraced this new technology. NOTES attempts to

marry an incisionless surgery platform, including instruments required for transluminal surgery, with years of experience of operating utilizing a pneumoperitoneum. With a large interest in NOTES worldwide—including a series of appendectomies conducted safely in India—the drive to apply this technology to a larger array of procedures is growing. As of today, cholecystectomies, appendectomies, splenectomies and diagnostic peritoneoscopy have been performed in animal and cadaver models. Transoral revisional bariatric surgery and transrectal colectomy may represent the next generation of procedures to be investigated.

NOTES has presented a challenge to both physicians and industry. As our demands on this technology have increased, industry has responded by developing innovative solutions for increasingly complex tasks. The Shaplock device by USGI is a metallic exoskeleton that acts to make the endoscope rigid at a time when a stable platform is required for operating. For example, performing a transrectal procedure with the Shaplock device allows for resection of a gallbladder much easier than with a nonrigid scope.

Several companies are currently competing in collaboration with surgeons and endoscopists to offer the next generation of surgical systems. However, NOTES has highlighted concerns of its own. With more than half of surgeons performing endoscopy only irregularly and resident experience less than uniform, adequate training in endoscopy may play a role in determining where NOTES finds a home.

Although genuine concerns on safety and applicability remain, there is no doubt in my mind that a quantum leap in surgical innovation has been heralded by new endoscopic surgical techniques. Endoscopic surgery has come a long way since surgeon William Beaumont, MD, performed the first human endoscopy. For those surgeons who remember the laparoscopic revolution of the 1990s, the choice of being an early adapter of endoscopic technology or a naysayer will sound very familiar. It would be at our own peril to ignore our endoscopic training opportunities as MIS fellows.

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