Increasing exposure of gastroenterology fellows to abdominal imaging

Gastroenterologists request various abdominal imaging studies for the work-up and diagnosis of a range of gastrointestinal symptoms and complaints. Many times, these studies are complementary to our endoscopic procedures (e.g., a patient with pancreatic cyst undergoing endoscopic ultrasonography or a patient with pseudocyst undergoing endoscopic drainage). The skill of interpreting abdominal imaging studies can broaden our understanding of gastrointestinal diseases and allow us to perform more efficient and accurate endoscopic procedures. In this month’s Fellows’ Corner, Dr Perry Pickhardt and Dr Glen Arluk propose different ways for gastroenterology fellows to increase their exposure to abdominal imaging.

THE GROWING NEED FOR FAMILIARITY WITH RADIOLOGIC IMAGING

Subspecialization in medicine has allowed for remarkable continued improvements in patient care, but it has also created challenging dilemmas for postgraduate training programs. For example, although rapid advances in the fields of both gastroenterology and abdominal imaging make it increasingly difficult to stay abreast of relevant changes in each other’s respective field, some level of familiarity is now more important than ever, given the wide variety of radiologic and endoscopic options for patient care. Imaging of GI diseases in the modern era requires a multimodal approach. To properly function within this environment, gastroenterology fellows (as well as practicing gastroenterologists) must familiarize themselves with the various available abdominal imaging tests, including their proper indications, advantages, and shortcomings.

From a practical standpoint, beyond the overarching primary concern of improved patient care, another reason that it behooves gastroenterology fellows to have a firm grasp of abdominal radiology is its ever-increasing emphasis in the gastroenterology board examination.

CHALLENGES ENCOUNTERED

As the field of gastroenterology continues to expand in scope and complexity, a gastroenterology fellow in training clearly has a lot on his or her plate. As such, adequate exposure to cutting-edge abdominal imaging during the course of the fellowship may be difficult to achieve. Rapid advances in cross-sectional imaging modalities such as CT, MR, and US as well as functional imaging such as positron-emission tomography (PET) make the goal of adequate exposure even more difficult. Recent years have also witnessed a changing workflow pattern, where the nearly universal use of filmless digital imaging and picture archiving and communication systems (PACS) means fewer trips to the radiology department to review films. By having the gastroenterology team independently viewing patient examinations in PACS, the diminished interaction with imaging experts will likely have an overall negative impact on the interpretation skills of gastroenterology fellows.

Some have even suggested that gastroenterology fellows be formally trained in radiologic image interpretation for reading studies such as CT colonography, which would add many more layers of complexity to fellowship training. Although perhaps well intentioned, the notion of nonradiologists reading an advanced radiologic examination without dedicated training would probably be impractical in most cases. Formal gastroenterologic interpretation of radiologic examinations would represent a fundamental shift that would undoubtedly add substantial time to the duration of fellowship training, not to mention the inevitable controversies and turf battles that would likely ensue. In our opinion, a preferred course of action is to build a closer relationship between gastroenterologists and abdominal imagers (radiologists), taking advantage of each other’s expertise to improve patient care.

POTENTIAL SOLUTIONS

So what should a gastroenterology fellow do to gain valuable exposure to the wide array of abdominal imaging
studies? We have come up with 6 potential solutions to consider, which are outlined below (Table 1).

1. More frequent interactions with your abdominal radiologists

As mentioned above, the implementation of PACS and filmless radiology departments, which represent great advances for patient care, often have the negative effect of decreased interaction of clinicians with the radiologists. Preserving or restoring this communication, whether via old school “radiology rounds” or more informal visits on pertinent cases, is a great way to gain exposure to abdominal imaging.

2. Attend multidisciplinary conferences at your institution

Multidisciplinary gastroenterology conferences, such as our weekly hepatopancreaticobiliary conference at the University of Wisconsin, are a great way for gastroenterology fellows to receive exposure to relevant abdominal imaging. In fact, imaging review often takes a center stage in such a forum and typically requires very active preparation from the participating radiologists.

3. Institute a formal radiology rotation within the gastroenterology fellowship program

Observational rotations through radiology that typically take place in the fourth year of medical school might be better served as a more specialty-tailored endeavor by fellows and residents. For gastroenterology fellows, such a rotation could be spent alongside subspecialized radiologists as they interpret abdominal CT, MR, US, and fluoroscopic imaging studies. Some gastroenterology fellowship programs have already taken this integrative step.

4. Incorporate radiology-based didactic lectures into the gastroenterology fellowship curriculum

At the University of Wisconsin, the abdominal imagers periodically provide formal lectures to the gastroenterology fellows as part of their “Fundamentals in Gastroenterology” series. Didactic and case-based radiology presentations are a nice complement to the purely clinical solutions discussed (1-3).

5. Review reference materials providing radiologic-endoscopic correlation

Although both endoscopic-pathologic and radiologic-pathologic correlation have received extensive treatment in books and other media forms, the same cannot be said for radiologic-endoscopic correlation, which is arguably even more important for patient care. A primary motivation for creating our “Atlas of Gastrointestinal Imaging: Radiologic-Endoscopic Correlation” was to help bridge the gap between radiology and gastroenterology practice by way of an easily digestible atlas of correlative imaging. Having a reference textbook on hand that provides more in-depth coverage of abdominal imaging, such as the “Textbook of Gastrointestinal Radiology” by Drs Gore and Levine, can also be helpful. Because gastroenterologists have incorporated fluoroscopic and sonographic techniques into endoscopic procedures, and radiologists have introduced noninvasive virtual endoscopic imaging techniques that simulate the conventional approach, the distinction between our 2 medical subspecialties is becoming increasingly blurred.

6. Attend radiology-related sessions at educational/society meetings

Radiology-infused offerings at national gastroenterology society meetings have been relatively scarce, but this may be changing. For example, the American College of Gastroenterology 2010 postgraduate course included a half-day session on “Pathology and Imaging in the Evaluation of GI Disease” as part of their board’s review series. One of our goals is to develop such a course that focuses purely on abdominal imaging and radiologic-endoscopic correlation.

CONCLUSION

Gastrointestinal imaging will continue to evolve as a complex but perhaps ultimately unifying field that combines both radiologic and endoscopic approaches to bring about better care of our patients. Effective patient care in the realm of gastroenterology will require an ever-increasing familiarity with radiologic imaging. We urge gastroenterology fellows to consider some of the potential solutions described herein for increasing their exposure to abdominal imaging.
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