Introduction to a New Series

by Andrew K. Roorda, M.D., Series Editor

"If only you could see what I've seen with your eyes!"

—Roy Batty (played by Rutger Hauer)
to Chew, eye genetic engineer

The above quote, taken from Ridley Scott's 1982 cult classic film "Blade Runner," embodies the sense of wonder that modern day endoscopists now experience almost daily. However, in many ways this quote does partial justice to the role of today's endoscopist in that we have gone well beyond merely visualizing the upper and lower gastrointestinal tract into therapeutic explorations. My main goal in this series is to have experts in the field highlight many of the exciting transformations that gastrointestinal endoscopy is undergoing and bring them to you, the reader, in as high of a quality and vivid manner as I possibly can.

New endoscopic innovations are allowing us easier access to areas of the gastrointestinal tract that were once technically difficult or impossible to accomplish. Our first article in the series will highlight the technical aspects and preliminary experience and outcomes related to the SpyGlass® choledochoscope, a technology that has overcome many of the technical limitations of the mother-baby scope and traditional endoscopic retrograde cholangiopancreatography (ERCP), experienced in the past. The small bowel, once the dark side of the moon for endoscopists, is now readily accessible with video capsule endoscopy (VCE) and has garnered an important role in the management of small bowel disease. While its initial indication was to assess for obscure gastrointestinal bleeding, there are now many new and exciting ways in which VCE is being utilized. An upcoming article in the series will focus on these expanded indications of VCE, such as gluten sensitive enteropathy, Crohn's disease, and polyposis syndromes. Furthermore, and as part of the excitement with capsule endoscopy, patients are no longer being sent exclusively to surgery for the management of findings on VCE. New advances in enteroscopy including double balloon endoscopy and other new enteroscopes are now enabling endoscopists to perform further diagnostic investigations and therapeutic interventions of small bowel pathology noted on VCE. Such new enteroscopic techniques and tools will also be discussed.

Another exciting transformation occurring in the field of endoscopy is that we are now able to visualize the mucosa in ways that were formerly only limited to the pathologist. With conventional white-light endoscopy, the endoscopist has been dependent on a standard visualization and a finite number of mucosal biopsies that may allow small, early lesions to be missed. An array of new optical techniques is now permitting the endoscopist to examine larger segments of mucosa in real time, both at the macroscopic and microscopic levels. The implications of this are that we are now able to diagnose and treat lesions at pre-malignant or early neoplastic stages, with better chances to improve survival. In future articles we will focus on two such techniques, narrow-band imaging (NBI) and chromoendoscopy.

No other area within endoscopy has transformed in recent years as much as that of therapeutic endoscopy. Once almost exclusively the domain of the general or hepatobiliary surgeon, the endoscopist can

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now perform many procedures that might spare a patient from an open surgical procedure. One such application that will be reviewed in an upcoming article is the management of complications of bariatric surgery such as fistulas or leaks, using available endoscopic stents or clips. Other articles will look at novel endoscopic treatments of gastroesophageal reflux disease (GERD) and Barrett's esophagus (BE). With the advent of natural orifice transendoscopic surgery (NOTES) this trend of therapeutic endoscopy will likely continue.

In recent years, endoscopic ultrasound (EUS) diagnostic and therapeutic applications have rapidly expanded. Not only has this technology enabled us to diagnose and stage malignant lesions, but it has facilitated the delivery of chemotherapeutic agents. These and other EUS applications, including the endoscopic management of benign lesions such as pancreatic pseudocysts will be also be discussed.

One feature of the series that I intend to introduce is the concept of Practical Points. In each article I will distill the most salient points that are applicable to everyday endoscopic practice and display them in bullet format within a text box. I hope that this may trigger the interest of the casual reader for a more in depth exploration and implementation of the particular technology.

As evidenced by the above innovations, the endoscopist must now take on the role of a surgeon, radiologist, pathologist, or oncologist. While endoscopy is and always will be at the focal point of what we do, the availability of these innovations should make us think "outside of the scope." It is my hope that this new series will provide the reader with valuable insight from experts worldwide on the many exciting new technological transformations occurring within the field of endoscopy and that this will in turn bring patients the best available endoscopic diagnostic and treatment options. ■