



Editorial

# Endoscopic Ultrasound Made Easy

Shyam Varadarajulu<sup>1</sup>

<sup>1</sup>Digestive Health Institute, Orlando Health, Orlando, Florida, United States

J Digest Endosc 2023;14:67.

Learning endoscopic ultrasound (EUS) can be challenging as the technology combines the disciplines of flexible endoscopy and diagnostic radiology. In the early days of evolution, radiographers performed EUS independently and taught gastroenterologists the basic principles of ultrasound. Lok Tio developed the first learning tool—an atlas of EUS—by correlating EUS images with computed tomography, surgery, and pathology. Robert Hawes is credited with developing the “station-based approach” whereby a gastroenterologist learnt how to position the EUS transducer at specific anatomical locations in the gastrointestinal tract and then identify the surrounding organs sonographically. This was the sentinel step that simplified learning and training in EUS.

Diagnostic EUS is mostly practiced for staging tumors and performing tissue acquisition. These carry significant implications for patient management and clinical outcomes. To achieve optimal outcomes, it is not sufficient to just know how to do EUS; one needs to be proficient. However, learning a technology is very different from mastering the discipline. Societies such as the ASGE (United States) and FOCUS (Canadian) have developed minimum thresholds to assess competency, and the number of procedures vary from 225 to 250. However, there is significant subjectivity between learners and one rule does not fit all. More importantly, learning EUS

has two components: technical and cognitive. In addition to performing the procedure independently, the endoscopist must possess sufficient cognitive skills to formulate the derived information to executable treatment plan. Both components are not mutually exclusive—they are complimentary/mandatory. New training tools such as TEE-SAT (The EUS and ERCP Skills Assessment Tool) emphasize these principles in EUS learning.

In this edition of the journal, Chavan and Rajput have proposed a pictorial essay to make EUS examination of the pancreas easier for the novice endosonographer. They have focused on the most difficult aspect of EUS—pancreatic anatomy—and have simplified it. The authors have expanded on the station-based approach by paying particular attention to technical nuances that can facilitate better interrogation of various parts of the pancreas, surrounding vasculature, and adjacent organs. The images and accompanying videos are thorough and easy to comprehend. This should enable precise detection and accurate staging of pancreatic diseases. This pictorial essay will be of significant relevance to novices, particularly those bereft of hands-on training opportunities. The onus is now on apprentices to apply this knowledge clinically and develop the requisite cognitive skills so that they can gain proficiency in the immediate future and attain mastery with time.

**Address for correspondence**  
Shyam Varadarajulu, MD,  
Digestive Health Institute,  
Orlando Health, 1335 Sligh Blvd,  
Orlando, FL 32789, United States  
(e-mail: svaradarajulu@yahoo.com).

DOI <https://doi.org/10.1055/s-0043-1772235>.  
ISSN 0976-5042.

© 2023. The Author(s).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution License, permitting unrestricted use, distribution, and reproduction so long as the original work is properly cited. (<https://creativecommons.org/licenses/by/4.0/>)

Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India