

---

## Preface

Endoscopic retrograde cholangiopancreatography (ERCP) has evolved from a diagnostic to a mainly therapeutic procedure over the past 40 years. Endoscopic ultrasound (EUS) with magnetic resonance cholangiopancreatography (MRCP) have largely replaced the diagnostic capabilities of ERCP with their decreased morbidity and comparable accuracy for a variety of pancreaticobiliary disorders. This is reflected by the overall decrease in utilization of ERCP over the recent decades. EUS has begun a similar foray into therapeutics although it remains a mainstay for diagnosis and staging of luminal as well as extraluminal cancers and other lesions. With the inexorable trend towards minimally invasive procedures, EUS offers a complementary approach to ERCP especially with surgically altered anatomy and inaccessible ampullae or biliary and pancreatic ducts.

This practical case-based textbook guides the reader through scenarios involving the use of ERCP and EUS. Both parts of the book begin with chapters providing an overview of the key aspects of training and technique in ERCP and EUS. Historically endoscopic training has resembled an apprenticeship. Recently, attention has been focused on the assessment of competency. This is critical not only during training, but also amongst practicing gastroenterologists, especially with the development of new techniques. The ongoing evolution of endoscopic techniques requires novel ways to train and evaluate endoscopists, which remain in their infancy.

In the ERCP section, special attention is paid to understanding the indications and complications of the procedure and importantly, the steps to minimize complications. While true for all endoscopic procedures, ensuring appropriate indication for an ERCP is the most critical step to preventing complications and thereby protecting the patient as well as the physician. The signature indications for ERCP including biliary stones, biliary strictures, and cholangitis have not changed although innovations including EUS evaluation of the biliary system, balloon sphincteroplasty, single-operator choledochoscopy, and fully covered metal stents have modified our approach to these situations. For pancreatic diseases, development of endoscopic cystgastrotomy and necrosectomy have transformed the paradigm for managing pseudocysts and walled-off pancreatic necrosis and demand intimate knowledge of both ERCP and EUS techniques. The changing landscape of diseases with the appreciation of autoimmune pancreatitis, autoimmune cholangiopathy, intraductal papillary mucinous neoplasm, and postsurgical patients require

not only understanding of these entities, but also insight into the appropriate equipment necessary to fully evaluate and manage these patients.

In the EUS section, the wide variety of accessories and equipment as well as basic cytopathology for the endosonographer is reviewed. The endosonographer must be comfortable with the radial and linear echoendoscopes as well as the high-frequency ultrasound probes and available needles in order to select the appropriate tools for a given procedure. The cornerstone of EUS still involves staging of luminal cancers and evaluating subepithelial lesions. However, EUS has evolved beyond this to play a critical role in the evaluation of benign and malignant pancreaticobiliary diseases as well as lung cancer. The therapeutic role of EUS remains in its adolescence, and currently focuses on celiac plexus neurolysis and endoscopic cystgastrostomy and necrosectomy with recent enthusiasm for EUS-guided biliary and pancreatic access. Improved accessories and devices are required to advance the realm of therapeutic EUS.

Through the use of cases and videos, this textbook provides physicians and trainees who practice or refer patients for ERCP and EUS a clear and practical resource about these procedures. The leading authorities around the world who have contributed to this endeavor provide not only an overview of the standard of care but also their expert opinions, tips, and tricks.

I am deeply grateful to all those who contributed to this book in the midst of their incredibly busy careers and lives. I believe this work will help improve the quality of care provided to patients potentially needing ERCP and EUS, and sincerely hope it serves as a guide to those involved in the care of these patients.

ERCP and EUS

A Case-Based Approach

Lee, L.S. (Ed.)

2015, XVI, 592 p. 308 illus., 180 illus. in color.,

Hardcover

ISBN: 978-1-4939-2319-9