Uniendo la Endoscopía de las Américas

BULLETIN OF THE ENDOSCOPIC ENDOSONOGRAPHY COMMITTEE

VOLUME I
OCTOBER
2025

COORDINATOR: DR. LÁZARO ANTONIO ARANGO MOLANO ISSN 2980-1205 (SIED SERIES)

ECONDOSCOPY TODAY: WHAT YOU NEED TO KNOW THIS MONTH

Endoscopic endosonography (EUS) has evolved to become one of the fundamental pillars of advanced endoscopy. By combining endoscopic vision with high-resolution ultrasound, it enables minimally invasive diagnosis and treatment of pancreatic, biliary, subepithelial, and mediastinal lesions. It has also gained relevance in the management of oncological lesions of the digestive tract, contributing to their staging and reducing the need for traditional surgical procedures by enabling gastrointestinal bypasses.

Currently, EUS provides tissue characterization and image-guided therapeutic access, which represents lower morbidity and cost compared to conventional surgery. The ASGE and ESGE guidelines (2023–2025) position it as a first-line tool in various situations, such as pancreatic masses, drainage of collections, and complex biliary access. Furthermore, multicenter studies are being conducted comparing biliary access by EUS versus precut in patients in whom biliary cannulation via traditional ERCP is impossible.

AREAS OF APPLICATION

- Pancreatic lesions
- Biliary lesions
- Subepithelial lesions of the digestive tract
- Mediastinal lesions
- Therapeutics on different systems

USEFULNESS IN DIGESTIVE ONCOLOGY

EUS has been integrated into the study and staging of oncological lesions of the digestive tract, being especially relevant in the esophagus, stomach, pancreas, and rectum, as well as in the evaluation and classification of some biliary tumors.

IMPACT ON THERAPEUTIC MANAGEMENT

Endoscopic endosonography has reduced the need for surgical procedures by allowing gastrointestinal diversions using minimally invasive techniques. It competes with interventional radiology, facilitating biliary diversions and drainage of encapsulated pancreatic, pelvic, and abdominal collections. The use of laparoscopy for staging and sampling has also decreased, as it allows for visualization of ascites, fluid collection, and puncture of lymph nodes or organ and omental masses. It is the primary indication for radiofrequency management of pancreatic insulinomas and is essential in the treatment of gastric varices and portal hypertension.

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DIAGNOSTIC AND THERAPEUTIC INDICATIONS

- Solid pancreatic lesions: Differentiation between neoplasia and inflammatory masses using fine needle biopsy (FNB). Staging of pancreatic cancer as a complement to computed tomography and magnetic resonance imaging.
- Pancreatic cysts: Aspiration and fluid analysis (CEA, amylase, glucose, and cytology) with risk assessment according to the Fukuoka and ESGE guidelines.
- Indeterminate obstructive jaundice: EUS is superior to CT and MRI in detecting small lesions (<1 cm), including stones smaller than 3 mm.
- Chronic pancreatitis and inflammatory masses: Early detection of parenchymal and ductal changes, applying Rossemont criteria.
- Subepithelial lesions of the digestive tract: Determines layer of origin, echogenicity, size, shape and depth, guiding resection or follow-up.
- Mediastinal and abdominal lymphadenopathy: EUS-FNB is the preferred method for tumor typing.
- Drainage of pancreatic collections: Use of plastic prostheses or LAMS, with technical success rates exceeding 95% and a low complication rate.
- EUS-guided gastrojejunostomy for pyloric syndrome: Minimally invasive alternative with technical success rates of 90–95% and minimal morbidity.
- Ablation of pancreatic tumors (insulinomas): Radiofrequency or ethanol guided by EUS for non-surgical patients, achieving sustained symptomatic control.
- EUS-guided biliary access: A safe option after failed ERCP.
- Celiac plexus neurolysis: Useful in refractory cancer pain and in some patients with chronic pancreatitis, with prolonged relief in more than 70% of cases.
- Vascular procedures and targeted therapies: Applications in hemostasis, drug injection, and coil placement, especially in the management of gastric varices.

RELATIVE CONTRAINDICATIONS

- Uncorrected coagulopathy (INR > 1.5 or platelets < 50,000).
- Massive ascites.
- Post-surgical anatomical alterations.
- Severe distal obstruction for the passage of the endosonograph.
- Advanced pregnancy (individual assessment).

ABSOLUTE CONTRAINDICATIONS

- Hemodynamic instability or shock.
- Active gastrointestinal perforation.
- Lack of informed consent.

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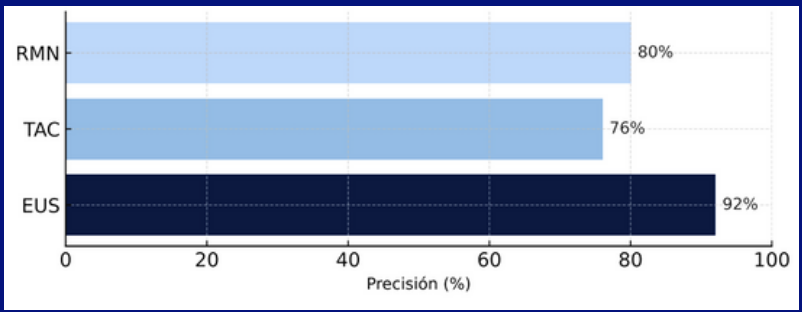
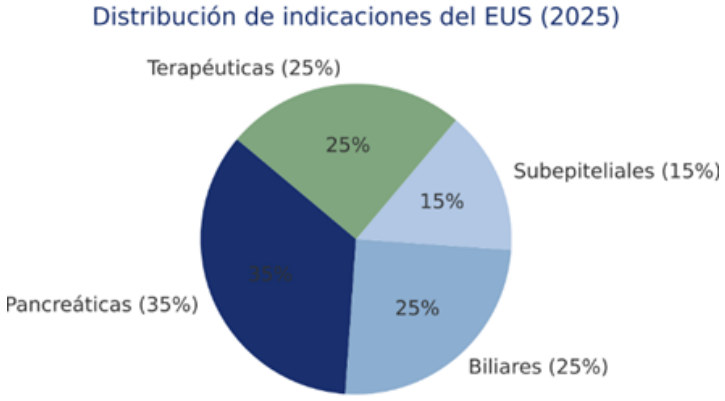


Comparative diagnostic accuracy in pancreatic and biliary pathology: EUS 92%, CT 76%, MRI 80%.(1,3,4)

RECENT EVIDENCE (2022–2025)

- Diagnostic accuracy: Sensitivity of 92%, specificity of 89%, superior to CT (76%) and MRI (80%).
- EUS-guided drainage: Clinical success rate between 94–98%, complications less than 10%.
- EUS-guided biliary access: Technical success rate of 91%, minor complications rate of 8%.
- EUS-FNB vs FNA: Diagnostic yield of 95% vs 85%.
- Gastrojejunostomy and tumor ablation: Technical success rate exceeding 90%, with sustained results.



Distribution of indications: Pancreatic 35%, Biliary 25%, Subepithelial 15%, Therapeutic 25%.

EUS TIPS & TRICKS FOR TODAY

- Always confirm the position of the tip of the echoendoscope upon entry to avoid injury to the cricopharyngeal, which can cause mediastinitis, which is often fatal.
- Use Doppler before performing drainage or FNA-FNB.
- Liquid collections should preferably be punctured with a 19 G FNA needle.
- Masses requiring tissue should be punctured with FNB.
- For the study of subepithelial lesions, use a balloon at the tip or external water as an acoustic medium.
- Remember that, in tumor staging, EUS is complementary to other methods.

CONCLUSION

EUS currently constitutes one of the main pillars of advanced endoscopy, combining high-precision diagnosis and minimally invasive therapy. Its expansion into tumor ablation, hybrid drainage, and vascular procedures opens a new frontier in the integration of imaging, intervention, and intelligent technology.

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LITERATURE

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VIDEOS OF THE MONTH

ANATOMIA LINEAL PARA EL ESTUDIO DEL PANCREAS Y DE LA VIA BILIAR.

This is an 18-minute video showing how to perform a complete examination of the bile duct and pancreas. It's edited and very useful for anyone new to endosonography or those looking to strengthen their knowledge.

ELUXEO 8000 SYSTEM

This is a 4-minute video that showcases the new technology by Fujifilm: the Eluxeo 8000 System.

ARTICLE OF THE MONTH

Evolving indications and techniques of endoscopic ultrasound: a practical update

Authors:

Gómez ML, Ruiz A, Patel S, et al. 2024. Evolving indications and techniques of endoscopic ultrasound: a practical update. Journal of Endoscopic Ultrasound. 2024;9:12–25.

DIRECT ACCESS LINK
https://doi.org/10.1234/jeus.2024.012

This open-access review (2024) synthesizes recent evidence on the diagnostic and therapeutic indications for endoscopic ultrasound (EUS) and offers practical recommendations for its use in centers at different levels. In diagnosis, it reaffirms the central role of EUS-FNA/FNB in the characterization of solid pancreatic masses, highlighting the superiority of state-of-the-art FNB needles in obtaining histological material and enabling molecular studies for targeted therapies. In pancreatic cysts, the combination of imaging criteria and fluid analysis (CEA, cytology, and molecular testing) improves risk stratification and therapeutic decision-making. In biliary tract, EUS is the technique of choice for detecting small choledocholithiasis and for evaluating indeterminate strictures after inconclusive ERCP. In oncological staging, it confirms its usefulness for esophageal and gastric tumors and for sampling mediastinal lymph nodes. In interventional medicine, the article reviews the established use of transluminal drainage of pancreatic collections with LAMS stents and the expansion of EUS-guided biliary drainage as an alternative after ERCP failure. It also describes emerging applications such as EUS-guided radiofrequency ablation and intratumoral injection, which show promising results but require further evidence. The authors emphasize the importance of training, centralization of complex procedures, and the use of standardized protocols to minimize complications and optimize outcomes.

NEXT EDITION

DIAGNOSIS AND MANAGEMENT OF SUBEPITHELIAL LESIONS OF THE DIGESTIVE TRACT BY EUS. VOL. 2 – NOVEMBER 2025