Beyond the Scope: Enhancing Patient Care through Advanced Endoscopy

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Objectives

Understand advanced endoscopy

Recognize capabilities beyond standard procedures

Identify referral triggers

Know when to connect patients with specialists

Enable collaborative care

Bridge primary and specialty care effectively

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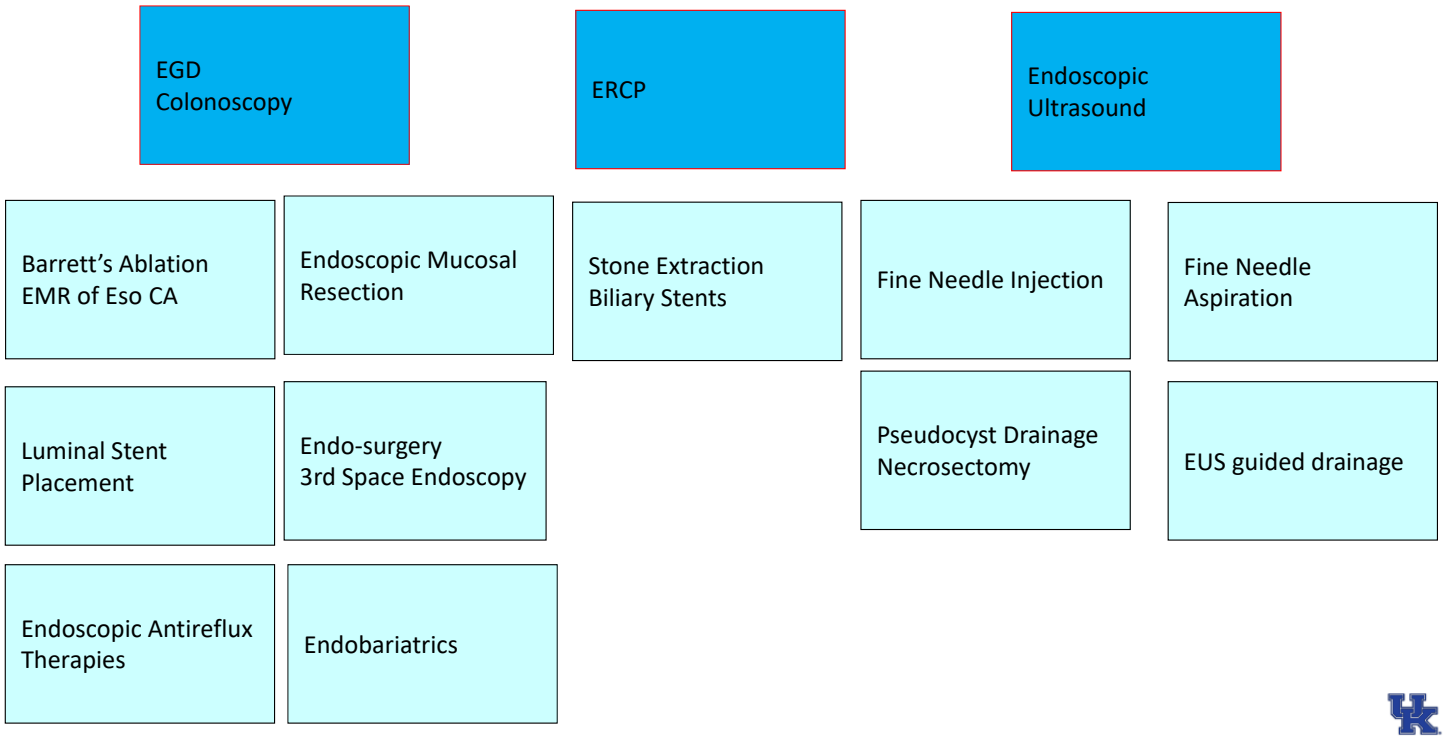
Introduction to Advanced Endoscopy



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Luminal Stenting

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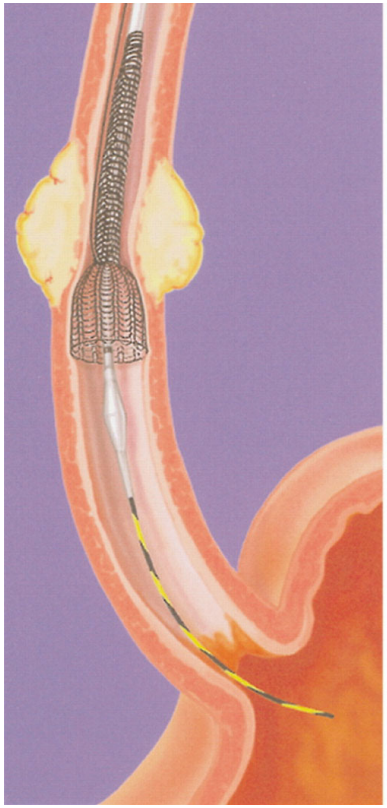

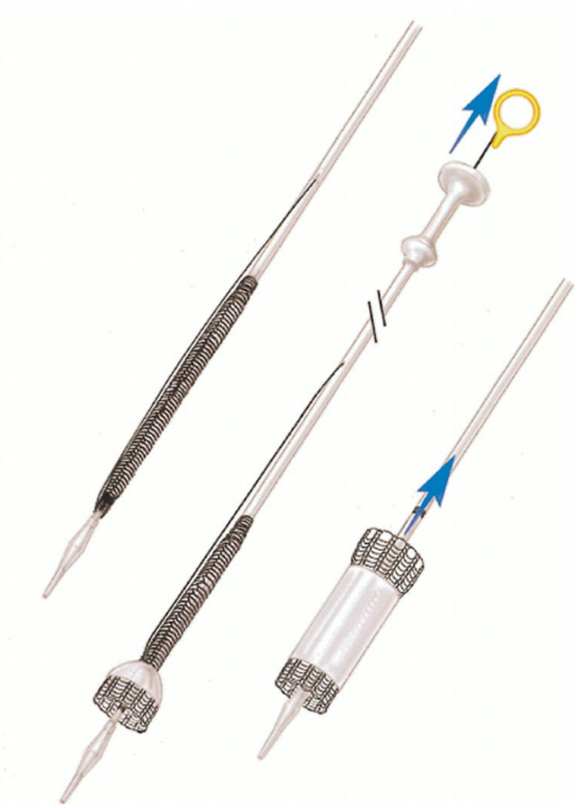

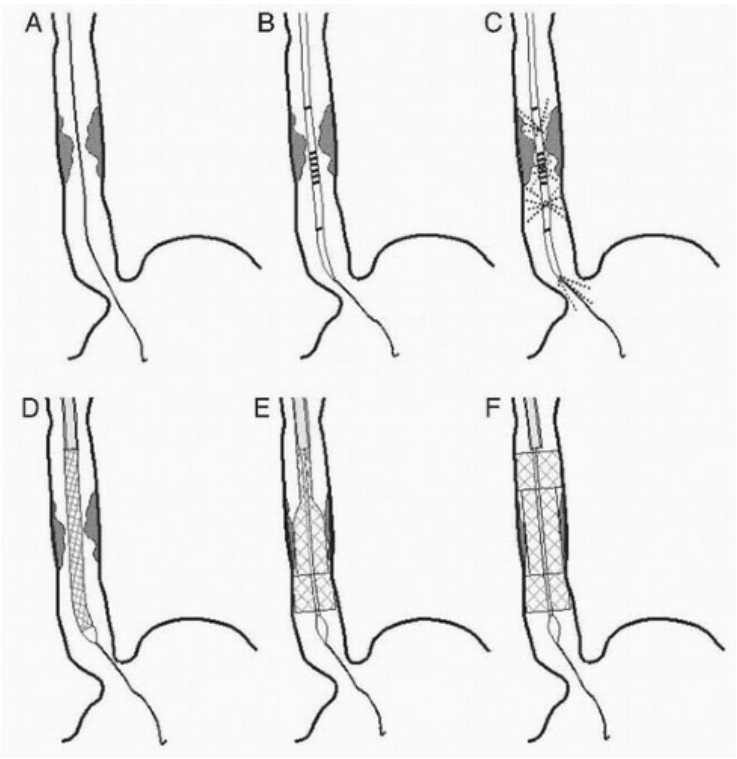

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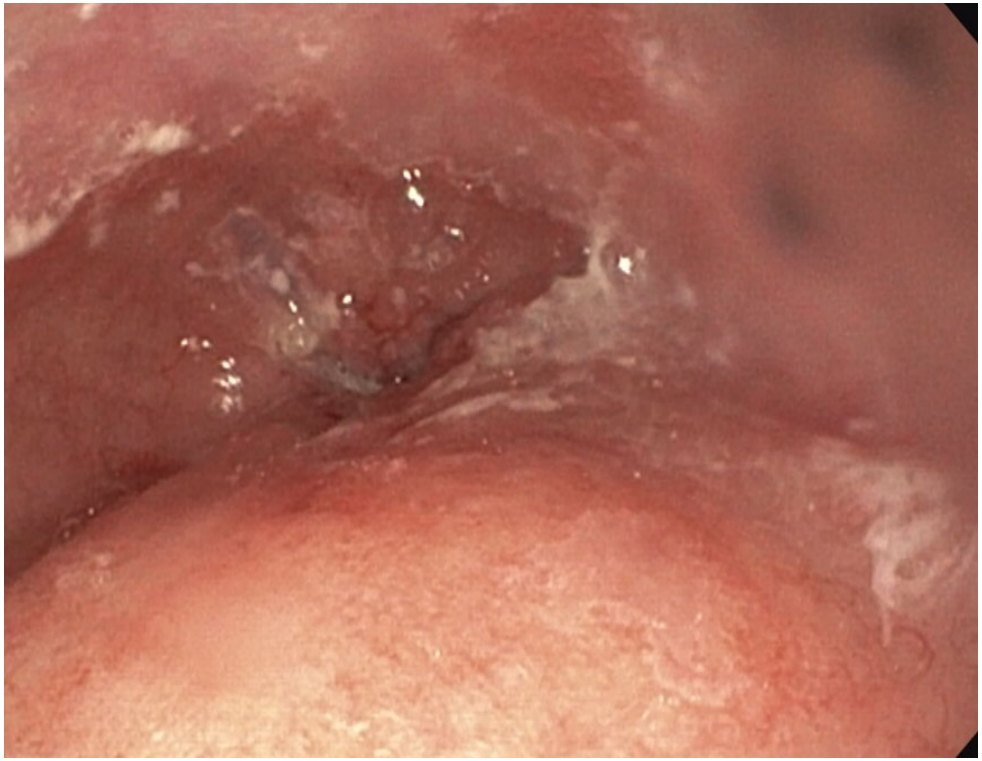
87 year old with esophageal adenocarcinoma



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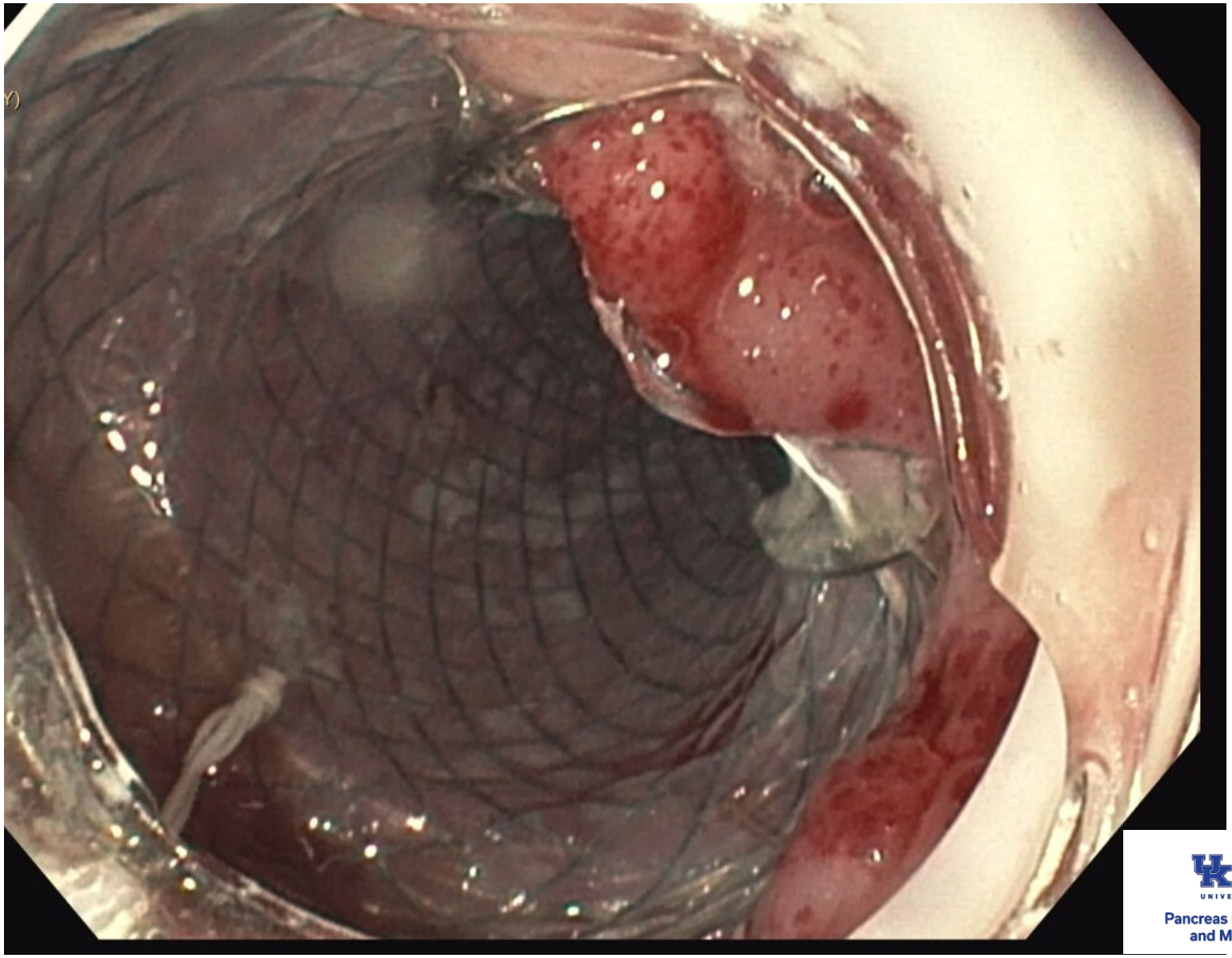

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Palliation of Malignant Dysphagia

- Stents help provide palliation in unresectable patients.
- Avoid stents in resectable patients.
- High rates of pain with stent placement (~30%).
- PEG placement in patients with poor oral intake.

Colonic Stenting: Bridge to Surgery vs. Palliative Care

Self-expandable metal stents (SEMS) offer effective management for malignant large bowel obstruction. They serve two critical purposes in clinical practice.

ESGE 2020 guidelines support using SEMS as a bridge to surgery for left-sided obstructive colon cancer. Treatment selection requires thoughtful shared decision-making between providers and patients.

Bridge to Surgery

Optimal Timing

Approximately 2 weeks until resection after SEMS placement

Patient Selection

Most beneficial for patients >70 years and/or ASA classification >II

Clinical Benefits

Prevents emergency surgery, increases primary anastomosis, decreases stoma formation

Anatomical Application

Recommended for left-sided obstruction; possible for right-sided cases with weaker evidence

Palliative Setting and Technical Considerations

Palliative Recommendation

SEMS is the preferred treatment for palliation of malignant colonic obstruction, supported by high-quality evidence.

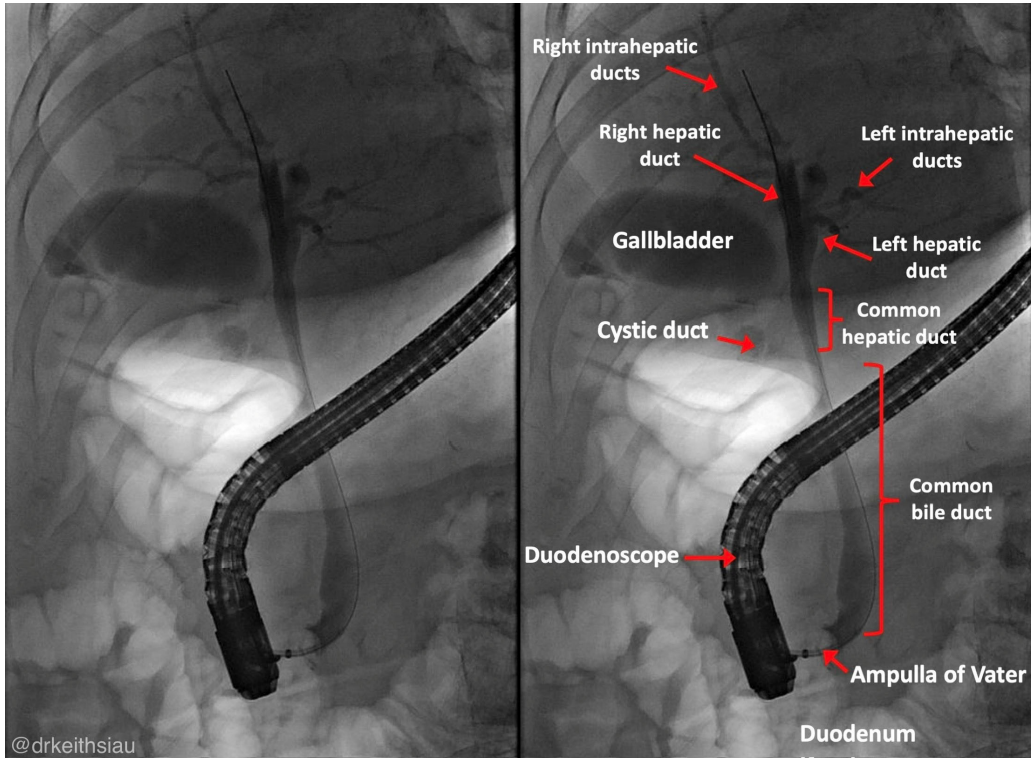
Technical Requirements

Operators must demonstrate competence in both colonoscopy and fluoroscopic techniques for successful placement.

Complication Management

Emergency resection is required for stent-related perforation. Prophylactic placement and stricture dilation are contraindicated.

ERCP



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Advanced Therapeutics: Expanding ERCP Capabilities

Stone Management

Extraction of biliary stones and stent placement for drainage

Cholangioscopy

Direct visualization for targeted therapy of strictures and tumors

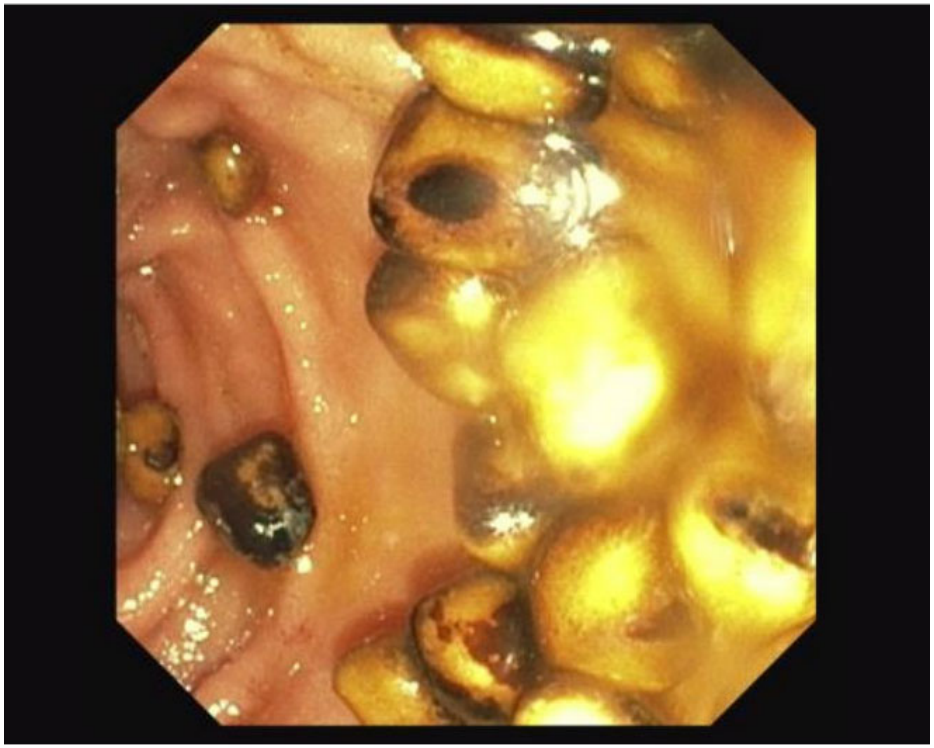
Tumor Interventions

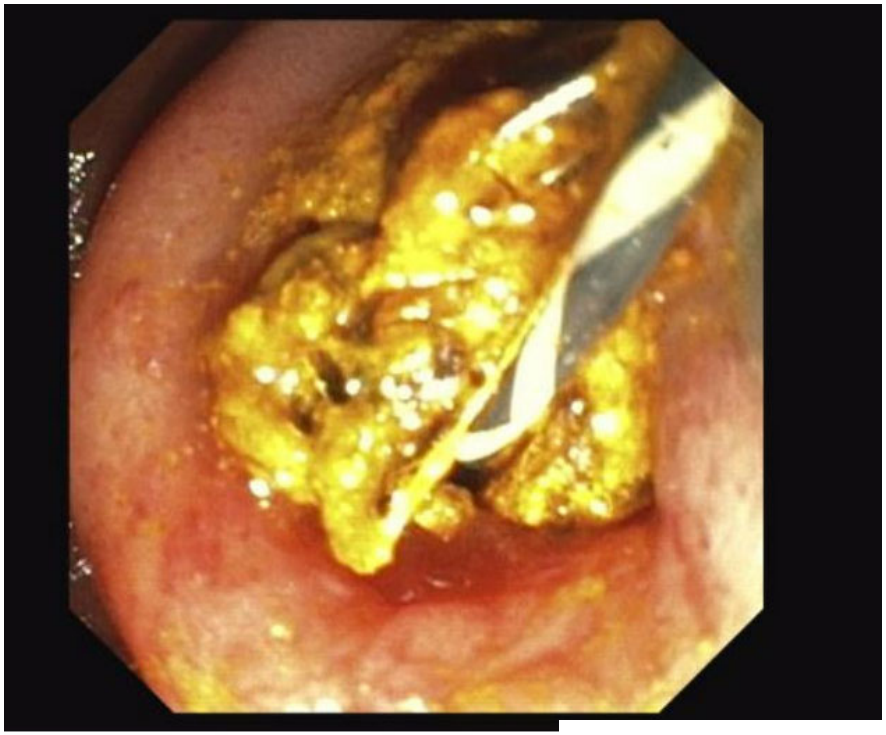
Ablation, biopsy, and dilation for complex pathologies

Leak Management

Treatment for post-surgical or traumatic biliary leaks

Stone vs Sludge





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Stricture

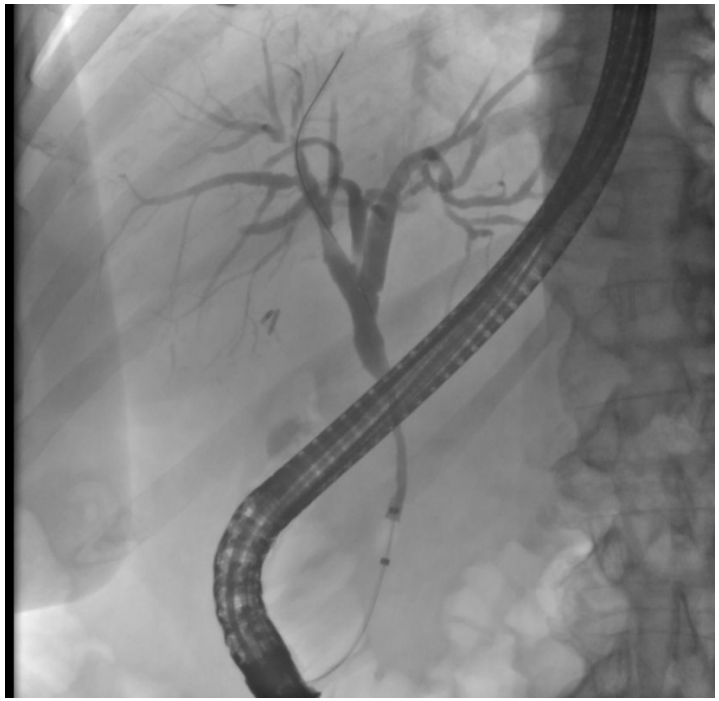
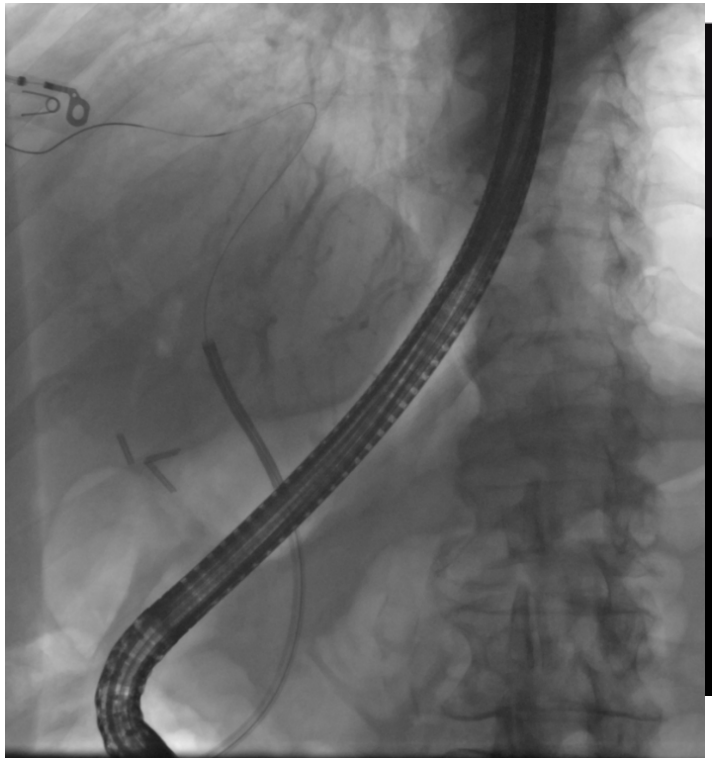
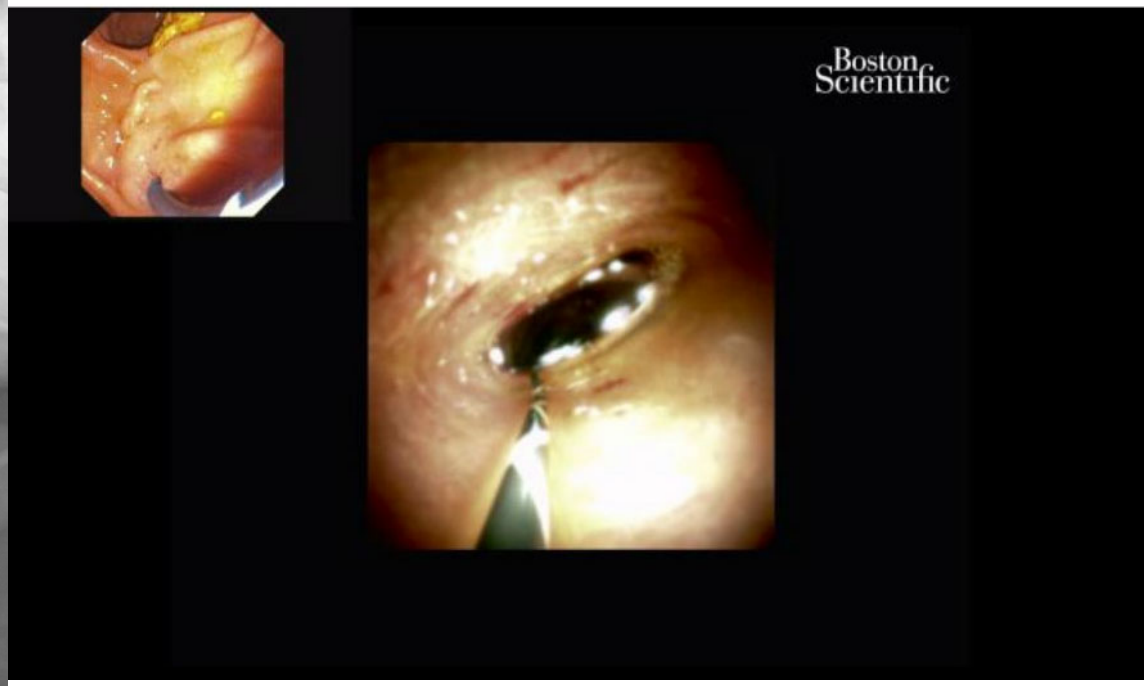


Table 4. Etiology of biliary strictures

Malignant, primary • Pancreatic cancer • Cholangiocarcinoma • Gallbladder cancer • Hepatocellular carcinoma • Ampullary cancer • Lymphoma • Rare: cystadenocarcinomas, mixed hepatocellular-cholangiocellular cancer
Malignant, metastatic • Colon cancer • Breast cancer • Renal cell cancer • Rare: squamous cell carcinoma
Fibroinflammatory • Chronic pancreatitis • Primary sclerosing cholangitis • Autoimmune (immunoglobulin G [IgG] 4–mediated) pancreatitis • IgG4-mediated cholangitis • Sarcoidosis • Recurrent pyogenic cholangitis • Extrinsic compression by a pancreatic fluid collection
Iatrogenic • Cholecystectomy • Liver transplantation • Local cancer treatment (chemoembolization, radiation therapy, microwave ablation, and radiofrequency ablation)
Vascular • Portal hypertensive biliopathy • Ischemic biliary injury
AIDS cholangiopathy
Mirizzi syndrome

Cholangioscopy





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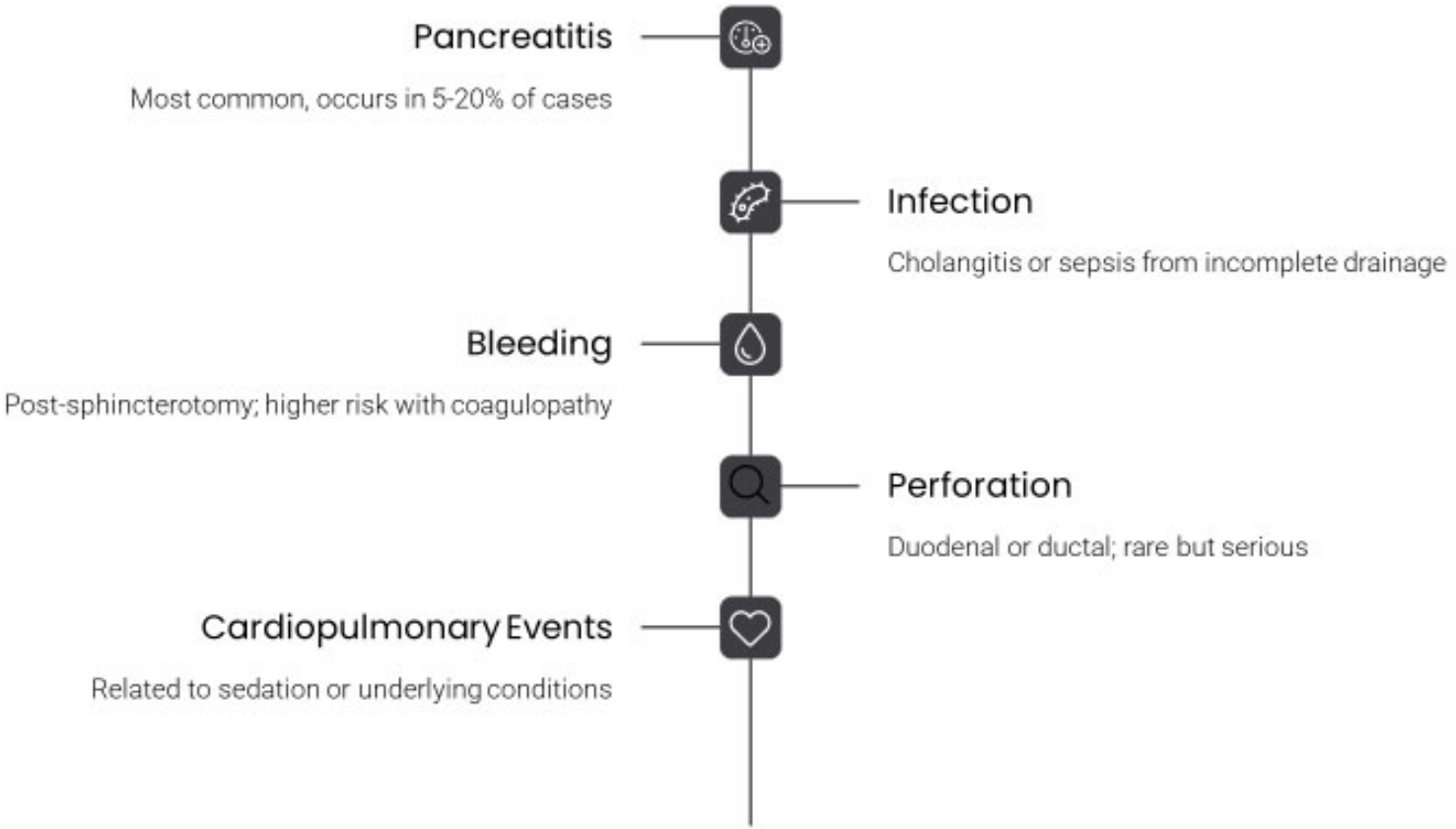
POST ERCP CARE

- Antibiotic Prophylaxis
- Anticoagulation restrictions
- Watch for complications
- If patient gets stents, that guides the timing of next procedure. Plastic stents need to come out in 3 months, metal stents can stay in for 6-9 months.

Complications of ERCP



When to Refer: Primary Care Guidelines

24–48h

Acute Cholangitis

Fever, jaundice, and RUQ pain require urgent ERCP

1–2wk

Biliary Obstruction

New-onset jaundice with dilated ducts on imaging

2–4wk

Suspected Malignancy

Mass lesions requiring tissue diagnosis via EUS-FNA

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Endoscopic Mucosal Resection (EMR)

- Removes superficial GI lesions in early-stage disease

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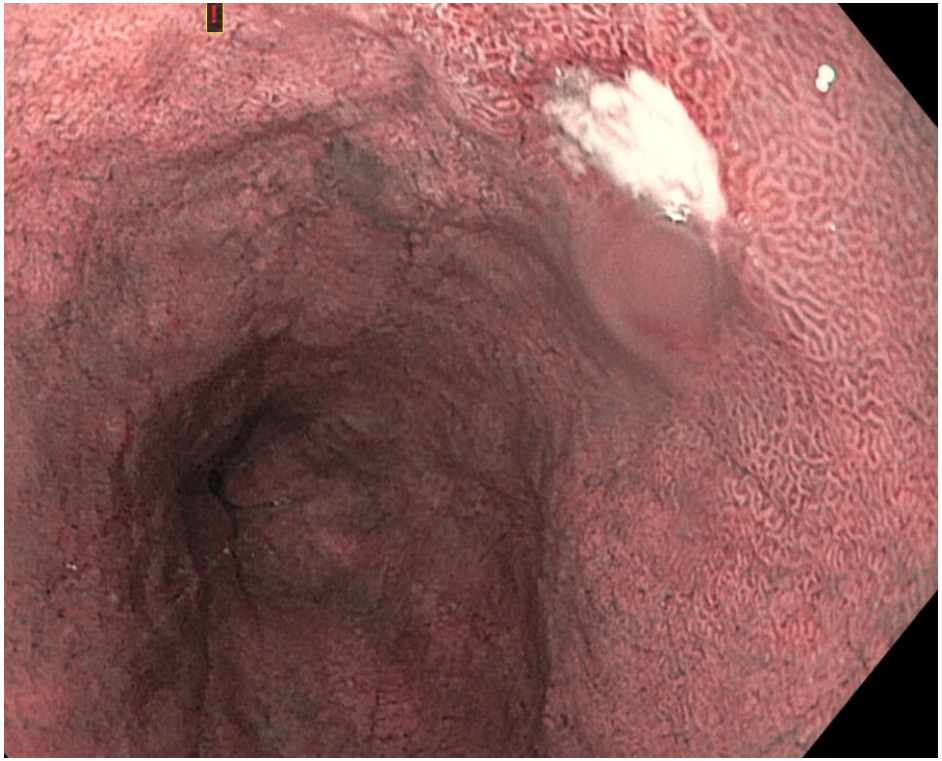
70 yr old presents for Barrett's Surveillance



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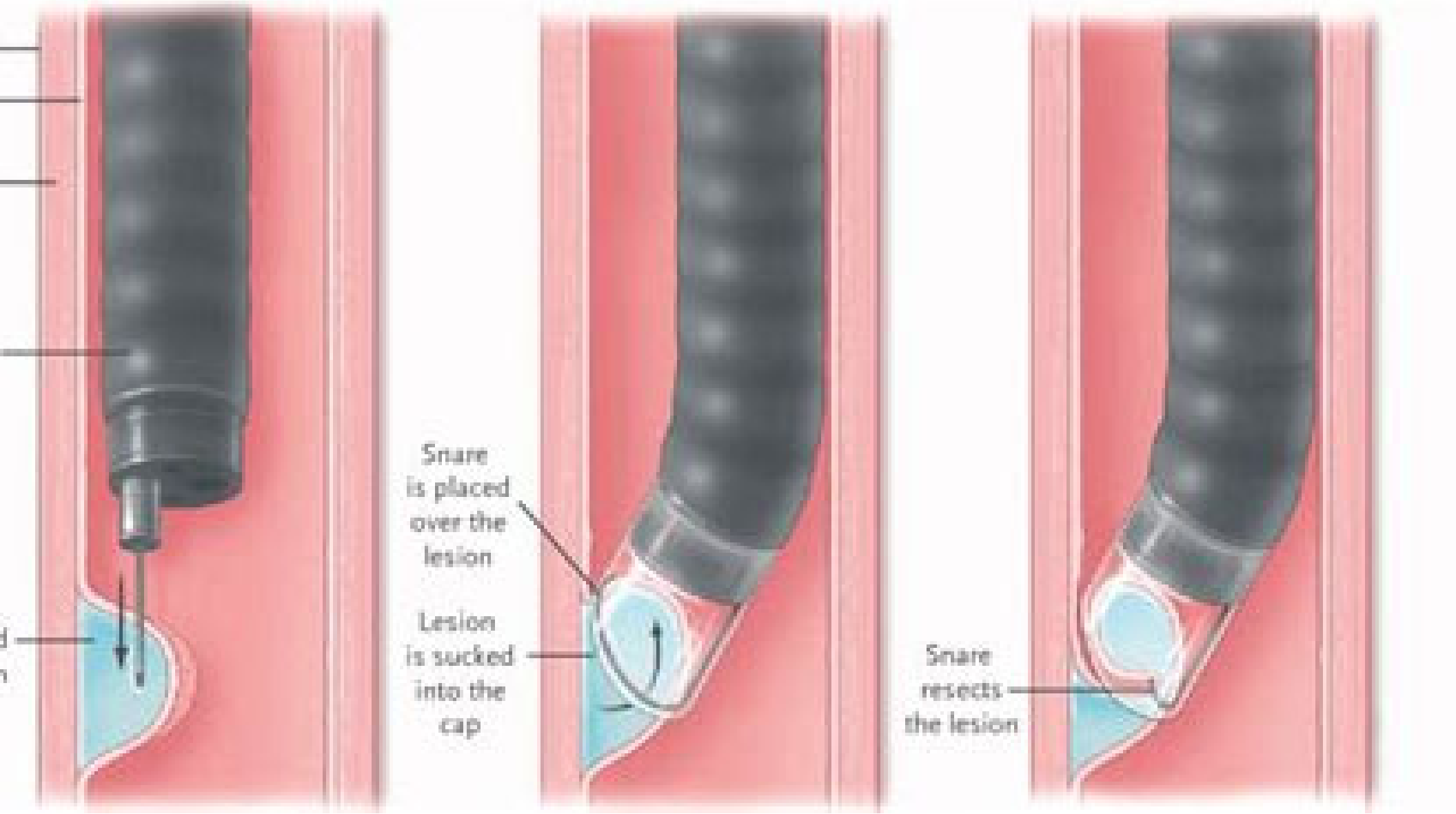
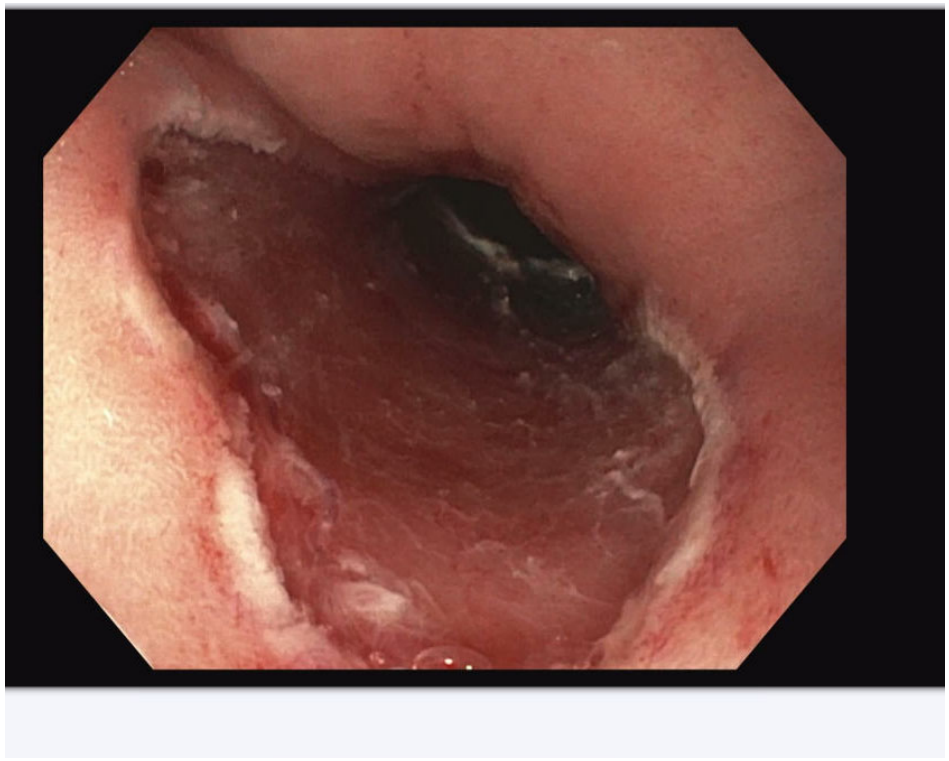
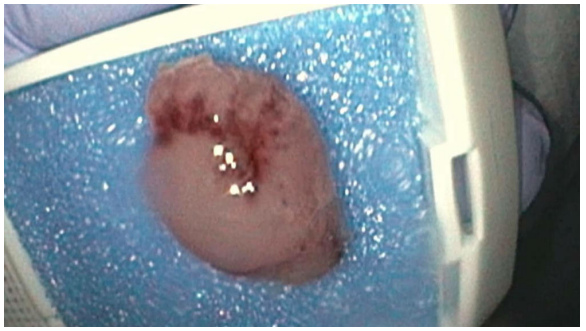

Snare
is placed
over the
lesion
Lesion
is sucked
into the
cap
Snare
resects
the lesion

EMR





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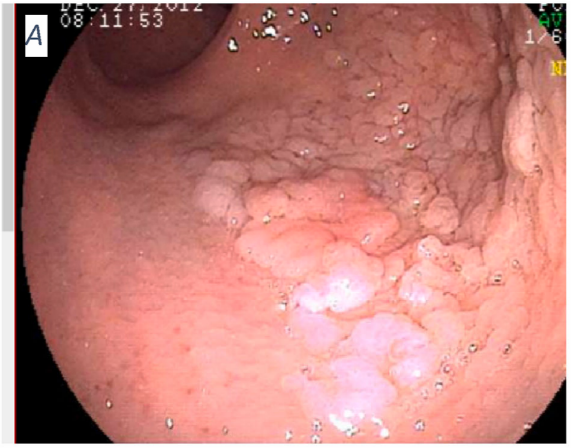
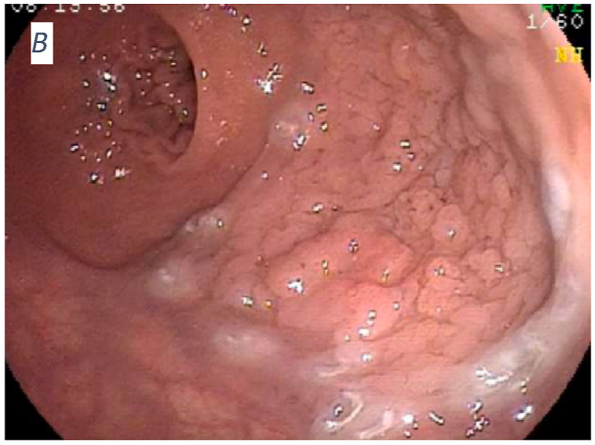
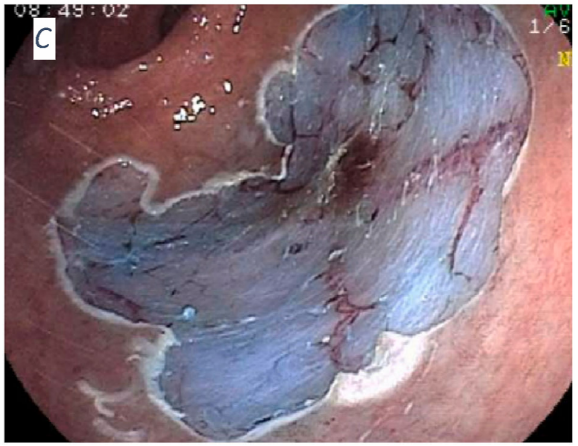
Colon EMR







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Post polypectomy follow up

Immediate Post-Procedure

Patients may experience bloating, cramping, and gas pains. Monitor for bleeding or perforation.

6 Months

First surveillance colonoscopy recommended after piecemeal EMR.

12-18 Months

Second surveillance if no recurrence was found at first check.

Referral Guidance

Refer patients with large polyps (>20mm) to experienced advanced endoscopists.

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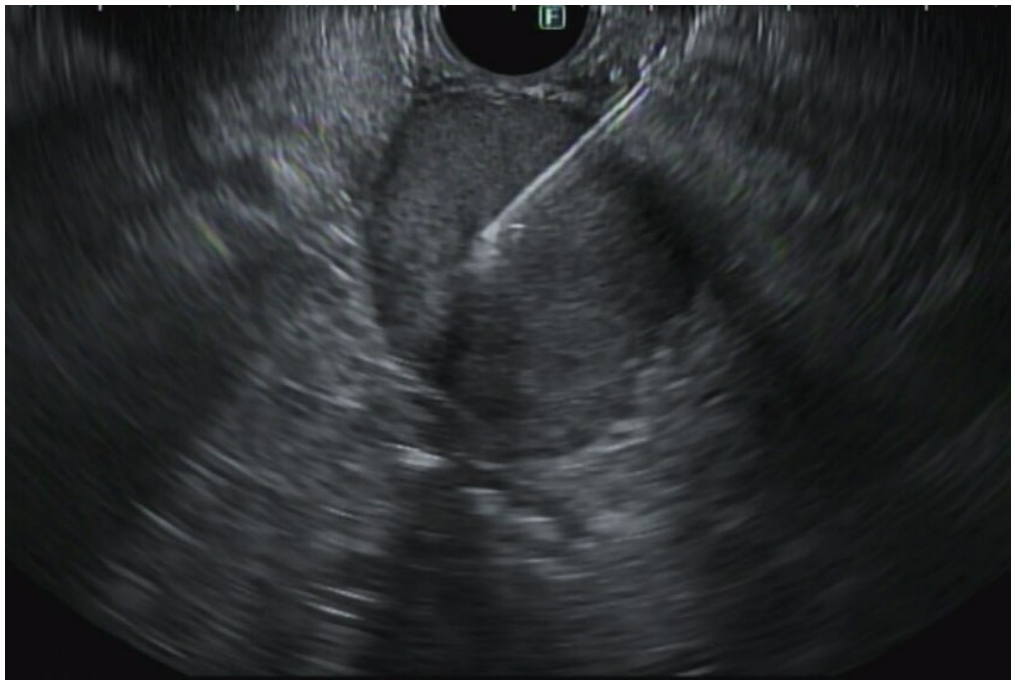
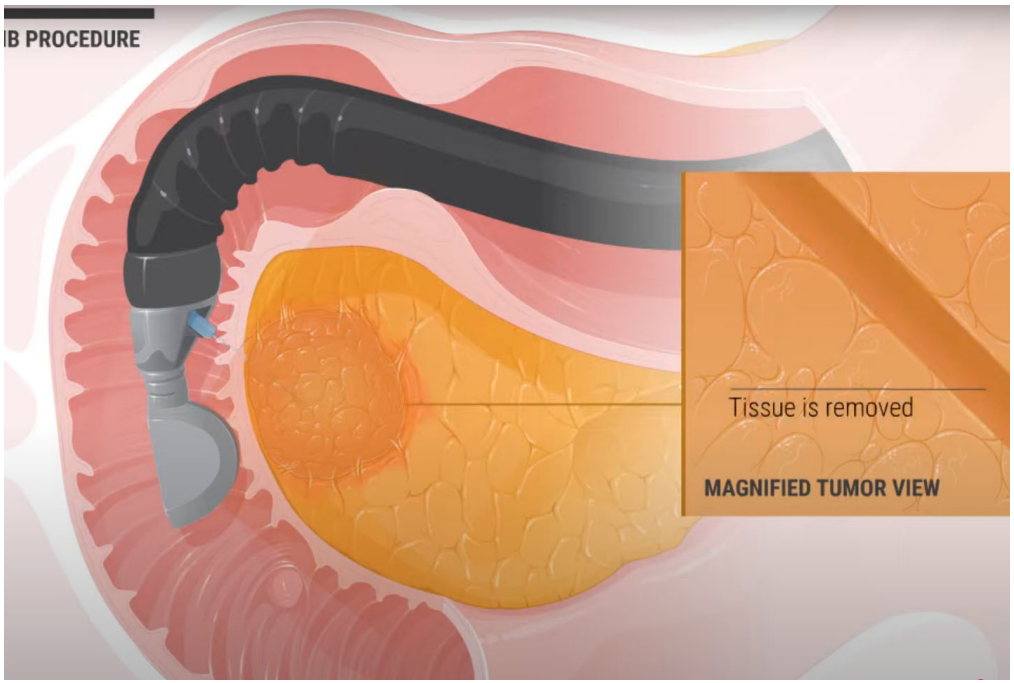
EUS (Endoscopic Ultrasound)

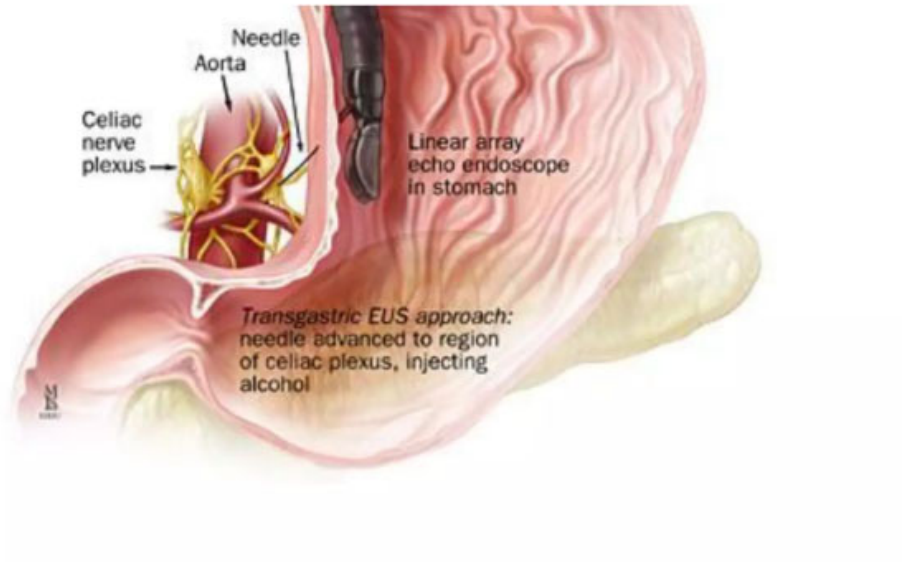
- EUS allows clear visualization of the GI luminal wall and its adjacent structure
- Most adjacent structures can be reached by a needle
- Allows for passage of drugs and passage of wire.
- Any structure visualized by EUS is a potential target for intervention.

EUS guided FNB





Celiac plexus Neurolysis



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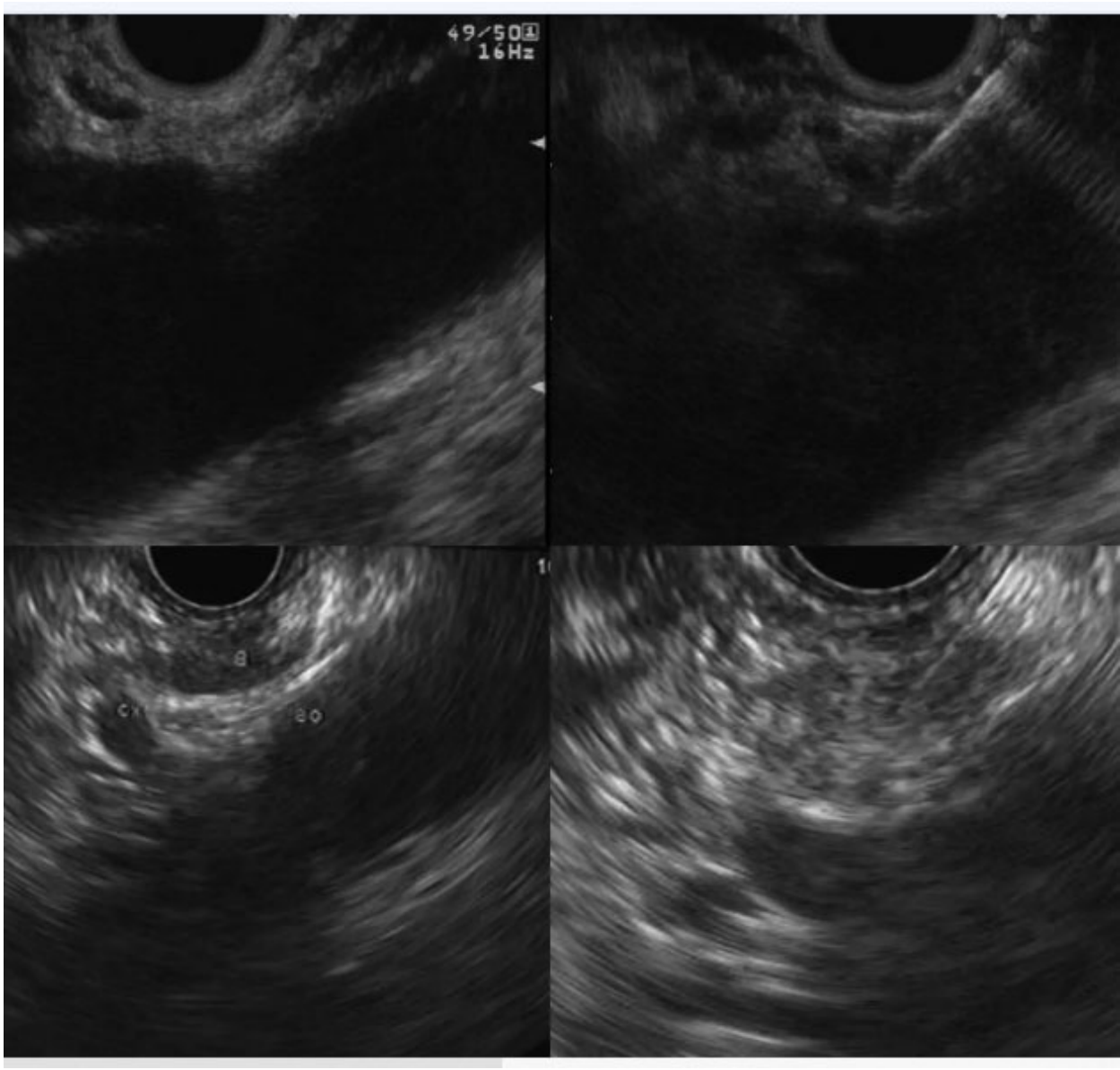
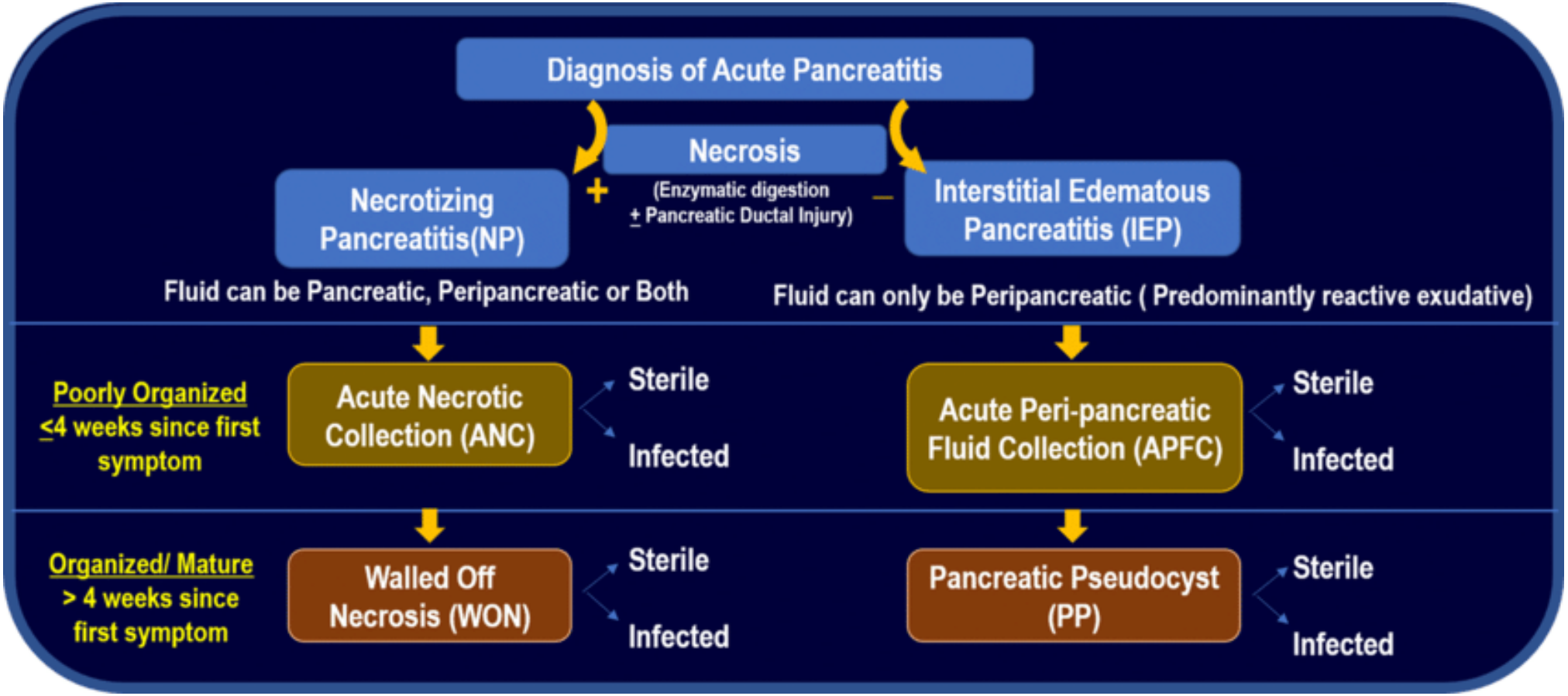
Celiac plexus Neurolysis

Patients with Pancreatic cancer and Chronic Pancreatitis



Complications of Pancreatitis



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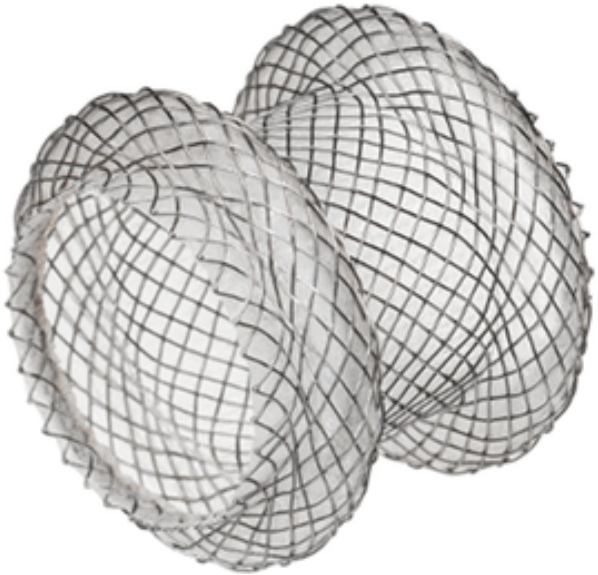

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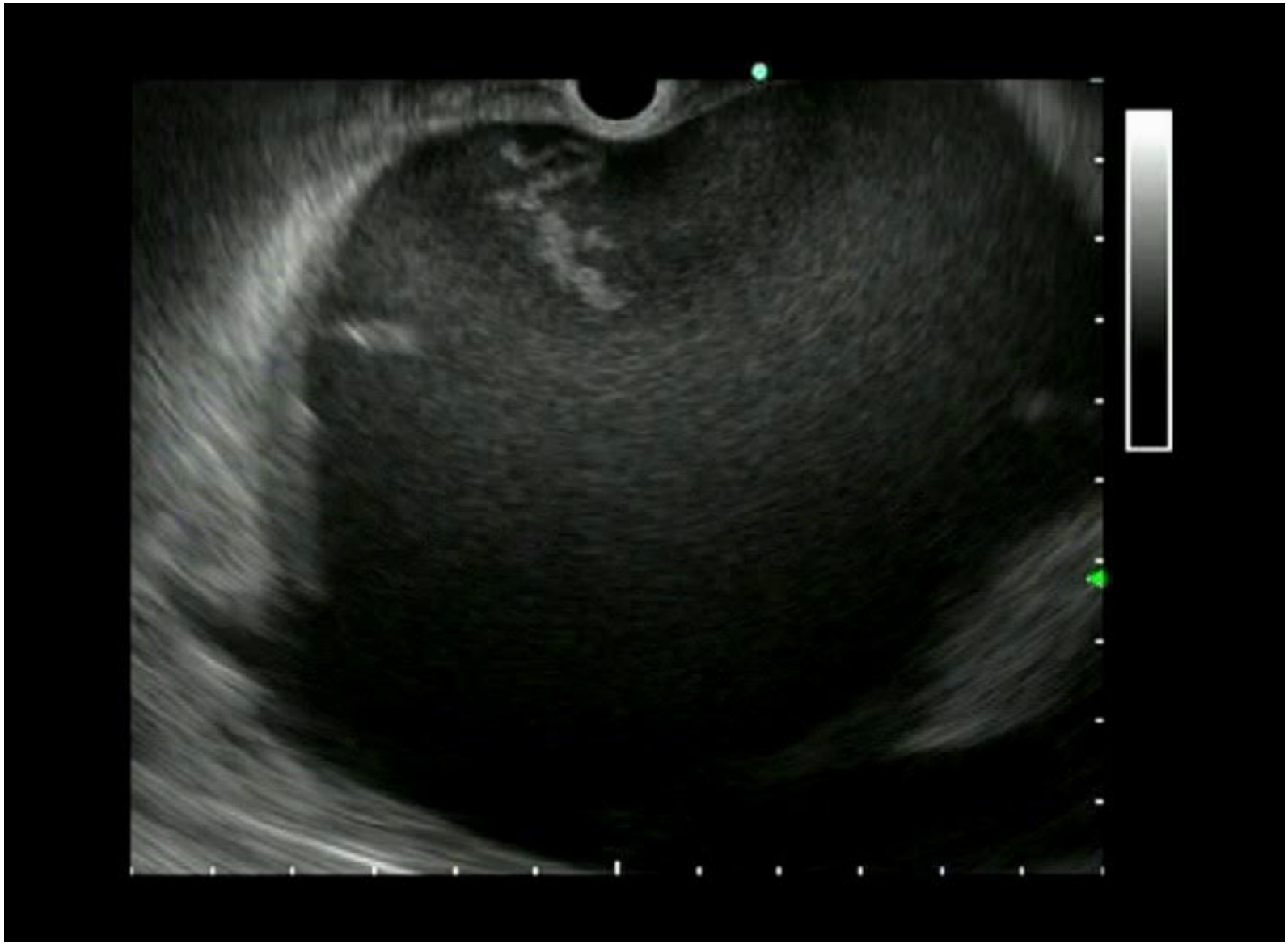
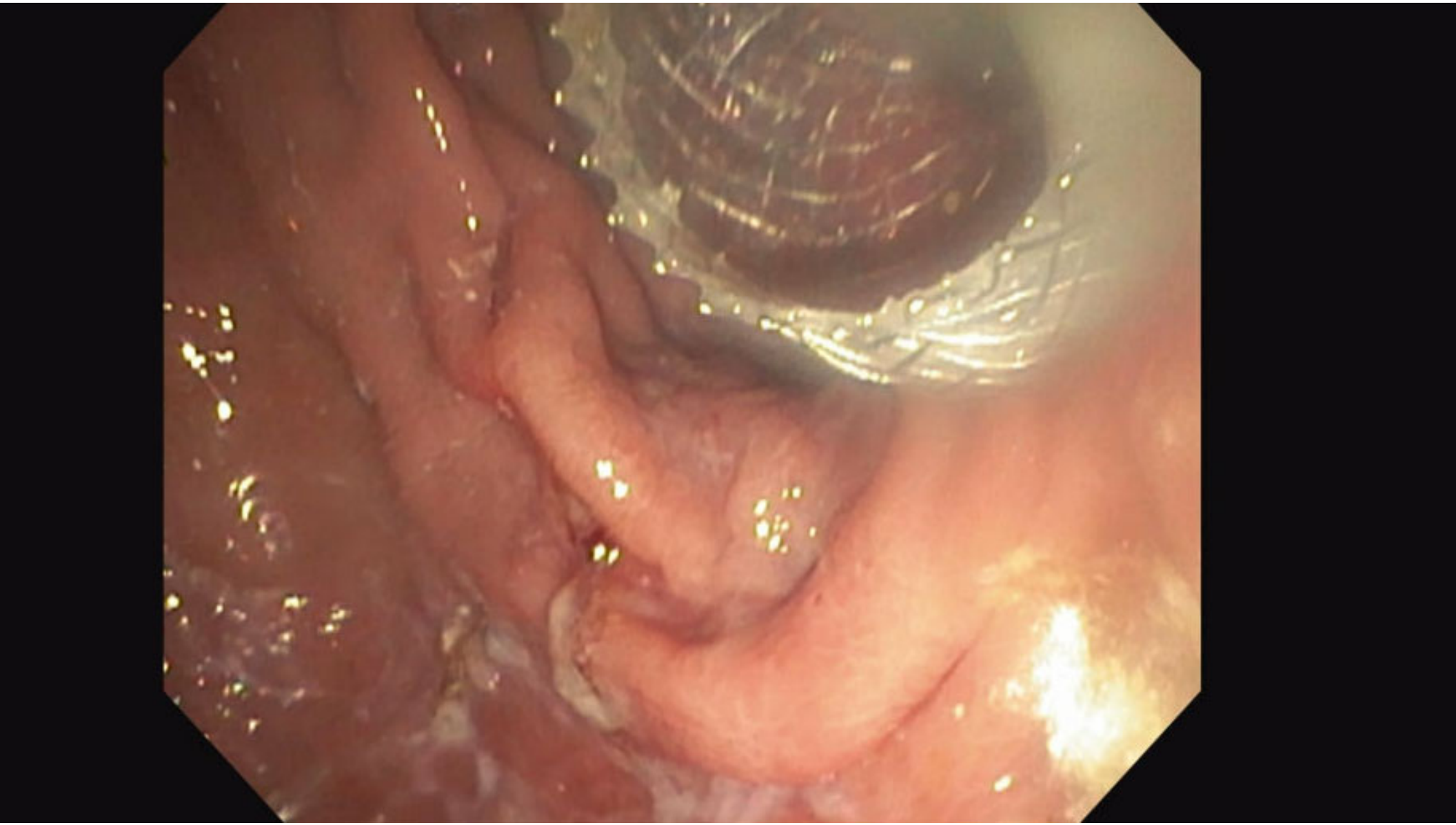
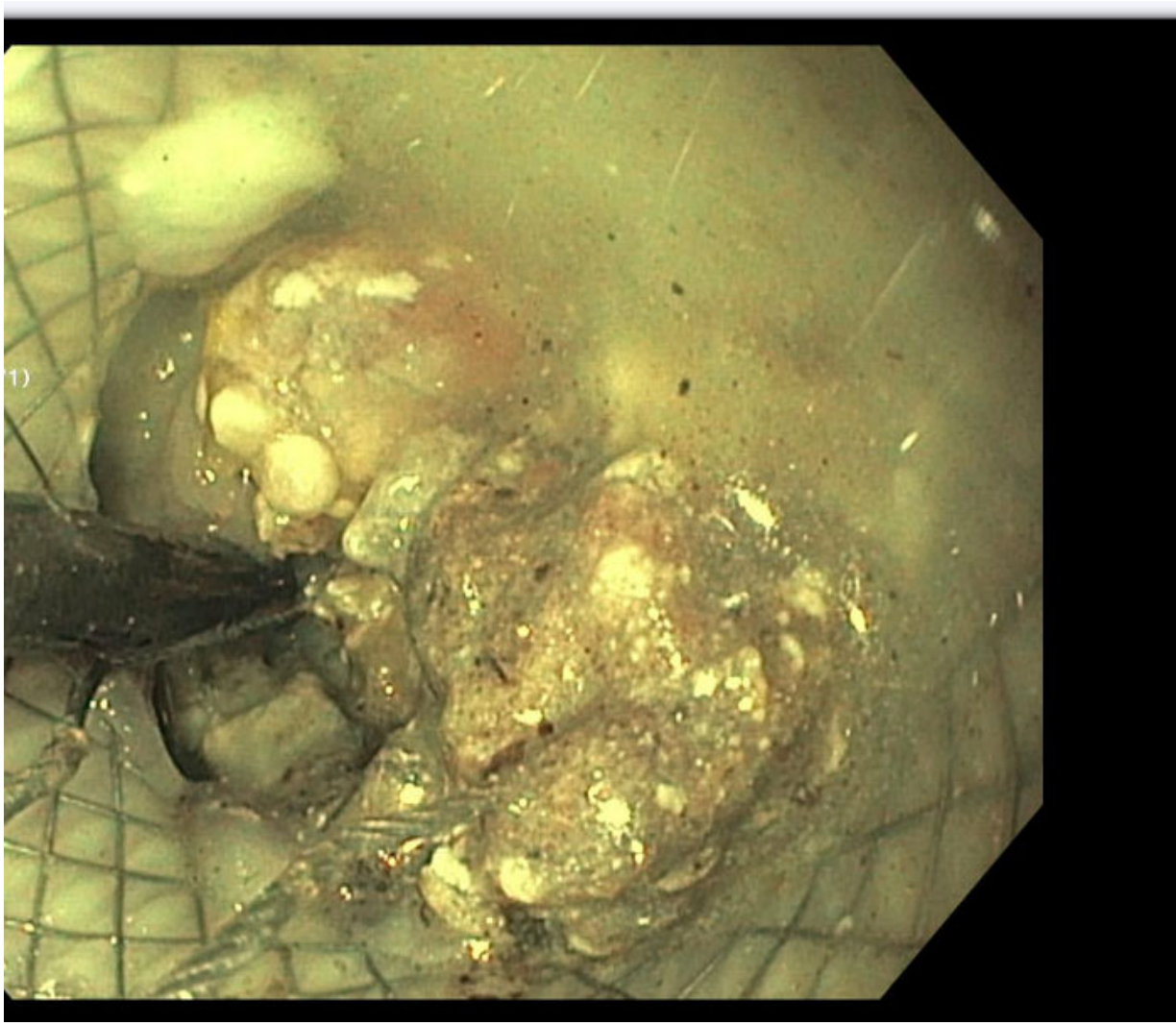
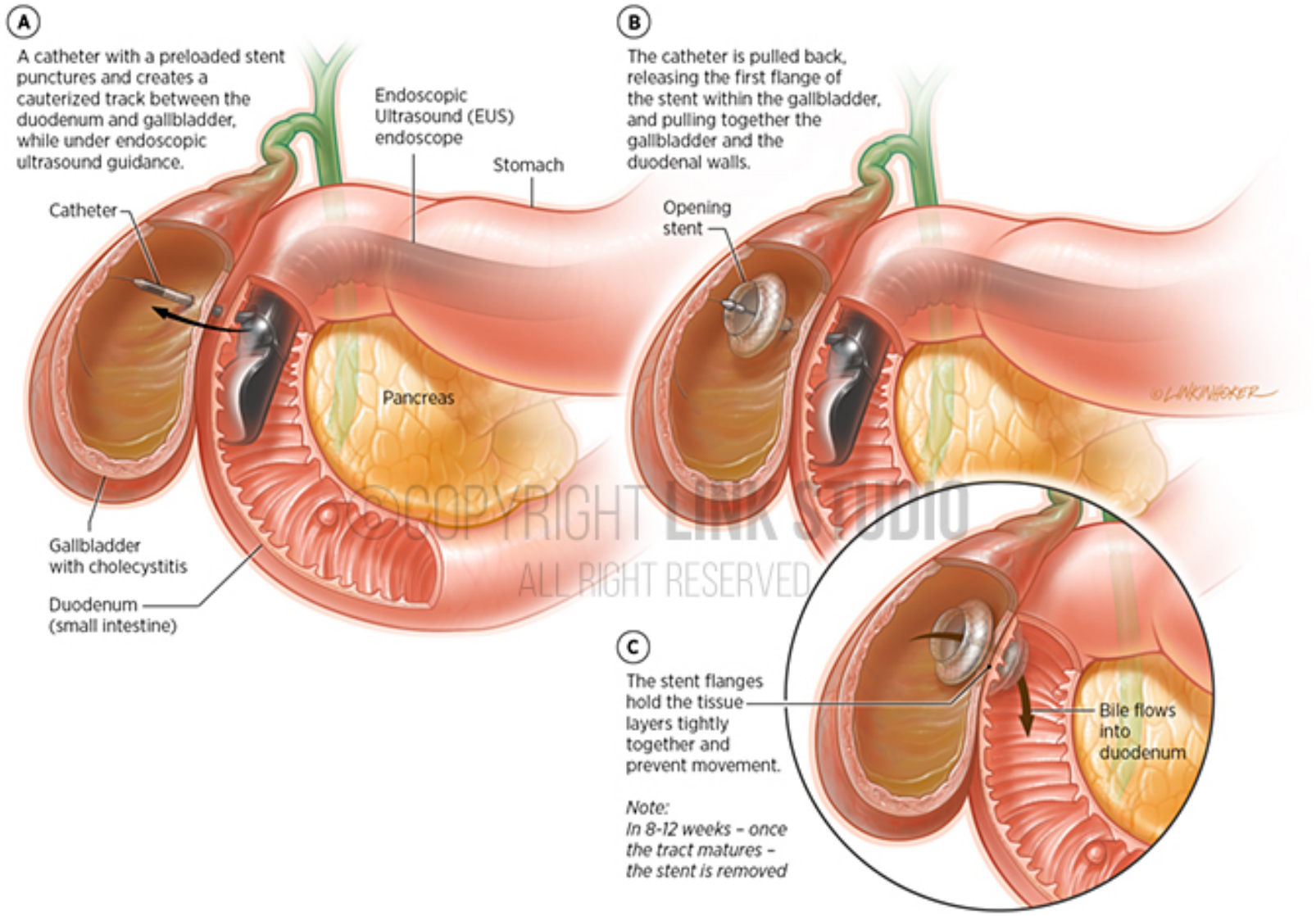




Necrosectomy





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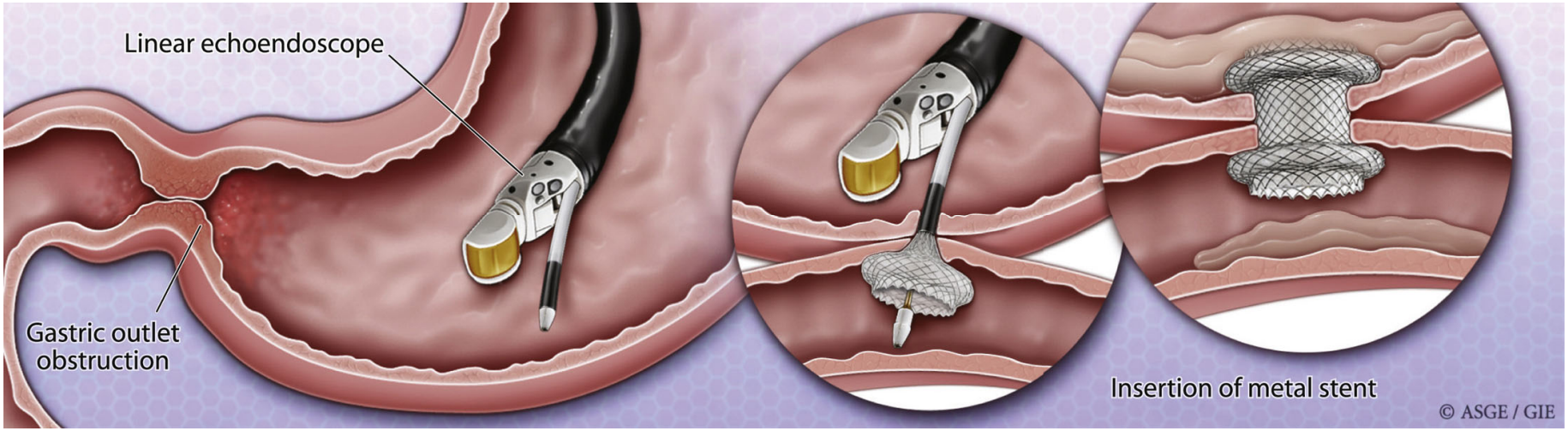
EUS guided gastrojejunostomy



ENDOHEPATOLOGY

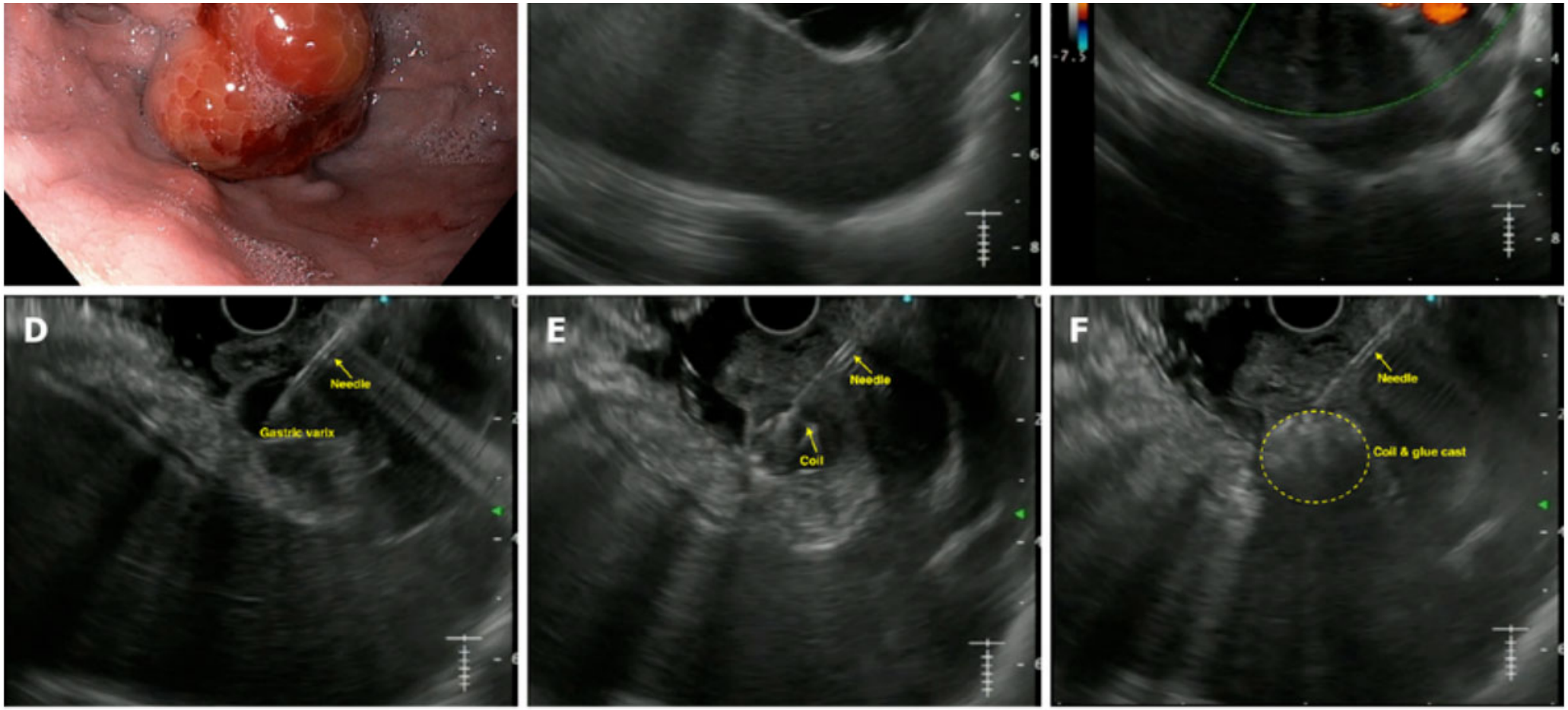
DIAGNOSTIC

- EUS Liver Biopsy (LB)
- EUS Portal Pressure Gradient (PPG)
- EUS Paracentesis
- EUS Shear Wave Elastography (SWE)
- EUS Contrast Enhancement (CE)
- Variceal Screening
- EUS Biliary Examination

> "One-Stop Shop"
>
> Multiple procedures can be performed same session

THERAPEUTIC

- Esophageal Variceal Banding
- EUS Gastric Variceal Coiling
- Esophageal Stenting for Refractory EV Bleeding
- ERCP Post Transplant Biliary Stricture
- EUS Direct Gallbladder & Biliary Access/Drainage



DOI: 10.4253/wjge.v15.i4.216

Endoscopic ultrasound-guided coil and glue injection for gastric varices. A: Endoscopic image of gastric varix; B: Endoscopic ultrasound image of gastric varix; C: Colour Doppler showing flow in the varix; D: Puncture of the varix with 19-G needle; E: Coil being deployed in the varix; F: Glue injected leading to coil-glue cast with varix

Next Frontier – Third Space Endoscopy

- POEM
- Endoscopic Submucosal Dissection

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Why should PCP know about these?

- Long standing trusted relationship with patient
- Discuss options
- Identify complications
- Set Expectations

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How to Access services

- Institutional open access referral pathways
- GI clinic referrals

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Summary

- Advanced endoscopy empowers better, earlier, safer GI care

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Q&A