



GHAPP

Gastroenterology & Hepatology
Advanced Practice Providers

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Case Studies:

When to Order MRCP vs ERCP in PSC Patients?

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Disclosures

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Disclosures

Andrea A. Gossard, ARPN, CNP

No financial relationships to disclose.

Case Study

- 39 year-old man with past medical history significant for chronic ulcerative colitis x 12 years presents for further evaluation of elevated liver tests. Referral labs:
 - AST 50 (8-48)
 - ALT 80 (7-55)
 - Alkaline phosphatase 208 (40-129)
 - Total bilirubin 0.9

Case Study 1

You repeat blood work with the following results:

- AST 61 (8-48)
- ALT 88 (7-55)
- Alkaline phosphatase 344 (40-129)
- Total bilirubin 1.1

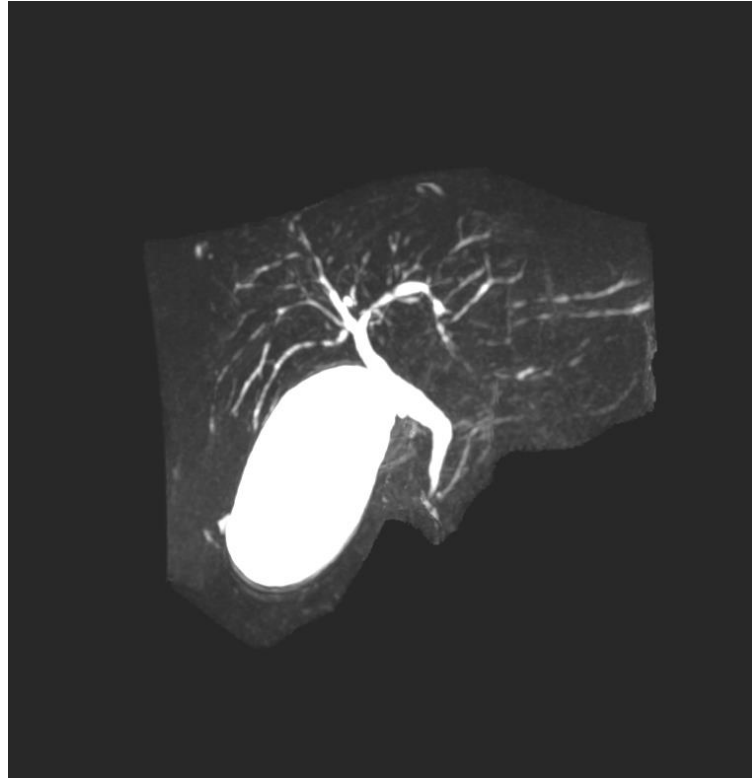
Case Study 1

- CUC is well controlled on vedolizumab;
no other medications
- Clinically well, no pruritus, RUQ pain, fevers
- Absence of acholic stools, dark urine, jaundice

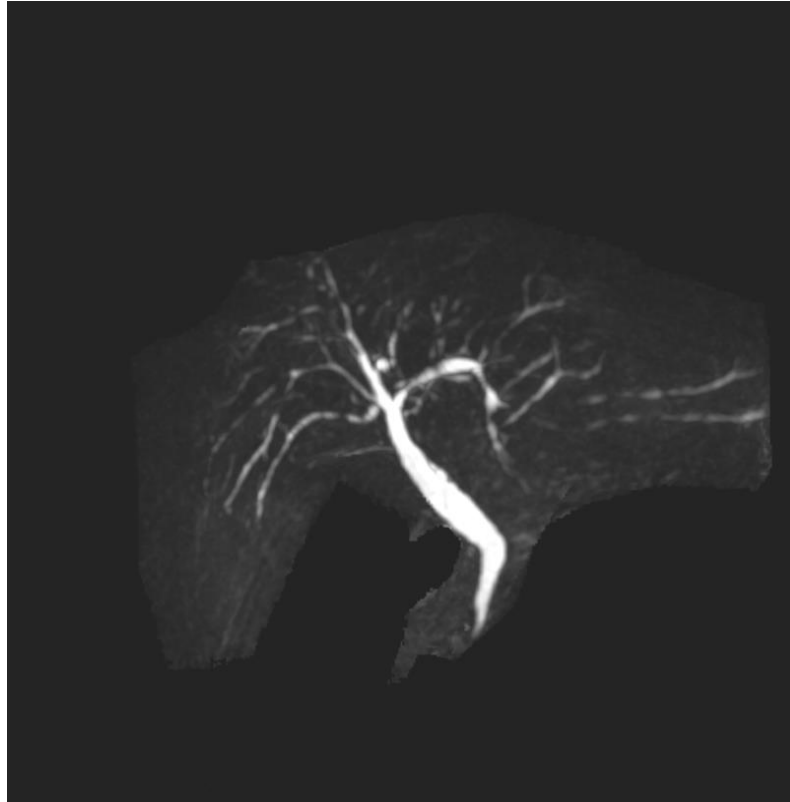
Further Evaluation

- Imaging
 - Abdominal ultrasound?
 - CT abdomen?
 - MR cholangiopancreatogram

MRCP Image With Gallbladder



MRCP Image With Gallbladder Deleted



Findings

- Intrahepatic bile duct strictures with segmental dilatation, or “beading”
- Bile duct wall thickening and enhancement
- No evidence for cholangiocarcinoma

Diagnosis

- Diagnosis: primary sclerosing cholangitis (PSC)
- No known effective therapy
- Several clinical trials including Phase 3 studies underway

Management

- Supportive
- Management of strictures, symptomatic cholangitis
- Surveillance for cholangiocarcinoma
- Implications for colon cancer screening in setting of IBD
- Natural history variable

Case Study 1, One Year Later

- Patient returns to clinic complaining of
 - Diffuse pruritus, worse at night
 - Intermittent pain in right upper abdomen
 - Dark urine, clay-colored stools
 - Jaundice

Physical Exam

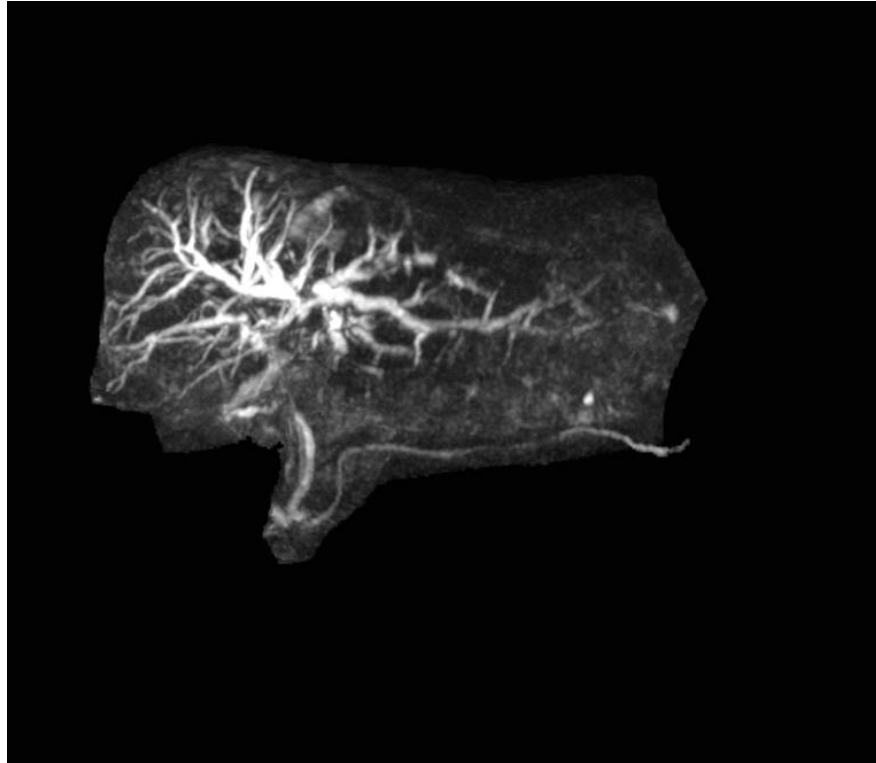
- Jaundiced
- Tenderness in the right upper quadrant
- Itching during consult

Case Study 1

You repeat blood work with the following results:

- AST 82 (8-48)
- ALT 132 (7-55)
- Alkaline phosphatase 487 (40-129)
- Total bilirubin 3.9

Repeat Imaging



Intervention

- Role of endoscopic retrograde cholangiopancreatogram (ERCP)
 - Diagnostic
 - Therapeutic

ERCP

- “Gold standard” for diagnosing PSC
- Allows for balloon dilation, stenting of bile duct strictures
- Allows for sampling of strictures by brushing, intra-ductal biopsy

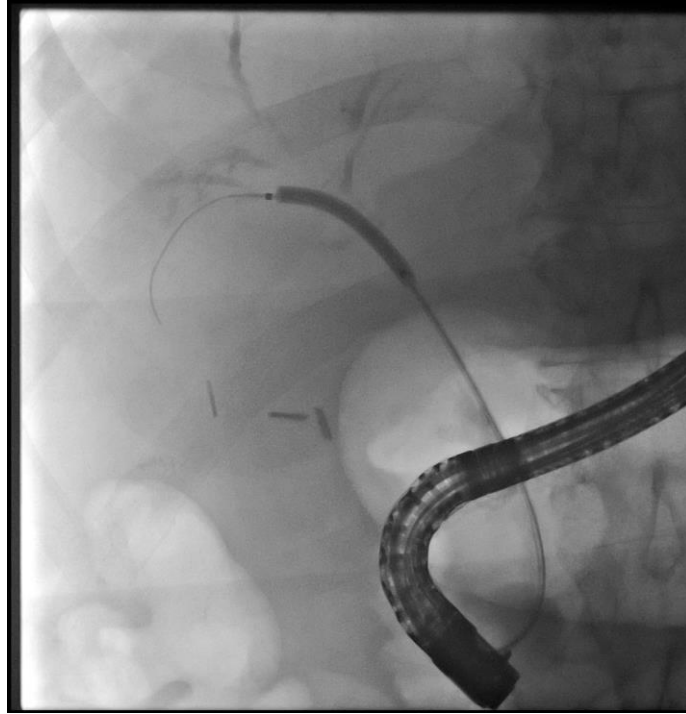
ERCP

- Risk of complications, 5-15%
- Risks dependent on degree of complexity
 - Pancreatitis, 3-5%
 - Most common, influenced by number of interventions
 - Bleeding, 2%
 - More likely if need sphincterotomy

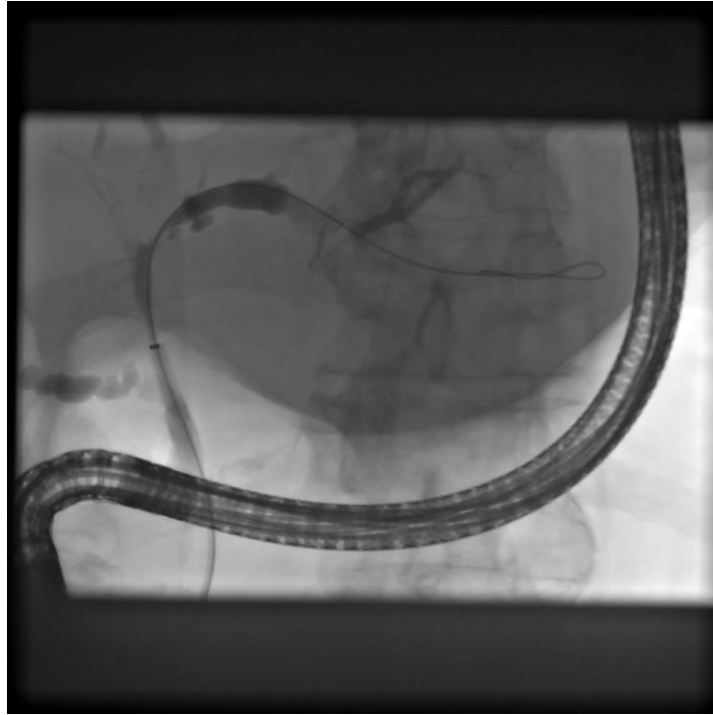
ERCP

- Risk of complications
 - Bowel or duct perforation, <1%
 - Influenced by need for therapeutic interventions
 - Infection, 1%
 - Reaction to sedative/anesthesia, uncommon

Fluoroscopic Images



Fluoroscopic Images



Recommendations

- MRCP best for initial diagnosis of PSC
- MRCP appropriate for routine surveillance
- ERCP invasive, deems it less appropriate for initial PSC diagnosis

Recommendations

- ERCP indicated for bile duct obstruction
- ERCP indicated if need for sampling (elevated CA 19-9, worrisome MRCP)
- Consider skill set/experience of local endoscopist



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Thank You