GALLSTONE PANCREATITIS

Diagnosis:

- **Definition:** meets the definition of AP AND imaging consistent with pancreatitis along with gallstones and/or choledocholithiasis
- **Differential Diagnosis:** Peptic ulcer, gastritis, cholecystitis, cholangitis, hepatitis, intestinal obstruction, hepatitis, IBD, splenomegaly

Key History to Review:

- History of prior pancreatitis, pancreatic/biliary anatomical abnormalities, prior pancreato-biliary surgery, hemolytic diseases, dyslipidemia, medications

Key Physical Exam Components:

- Eyes/Skin: possible jaundice
- Abdomen: epigastric tenderness in older children (could be any location in younger children) with possible radiation to the neck or back
  - May also have positive Murphy's sign (right upper quadrant pain on deep inhalation during palpation) which may suggest concomitant cholecystitis

Key Labs/Imaging:

- **Labs:** CBC, CMP, amylase, lipase, direct bilirubin, GGT, triglycerides, IgG subclasses if concern for autoimmune pancreatitis
- **Imaging:**
  - Ultrasound is usually the first imaging test (no sedation, contrast, or radiation), providing details on the biliary system and pancreas
    - The biliary tree should be evaluated for size and stones
  - If more imaging is required, consider abdominal CT with IV contrast (radiation, but fast) or an MRCP (no radiation, but may need sedation)
    - Both can better categorize parenchymal changes, but MRCP provides superior ductal anatomy detail

Management Considerations:

- AP management (see AP flash cards)
- If a dilated common bile duct, dilated common hepatic duct, and/or dilated intrahepatic duct is noted without clear evidence of choledocholithiasis → CT or MRCP should be considered
- If biliary stone (choledocholithiasis) is seen → ERCP for stone removal and cholecystectomy
  - Patient may require transfer to a tertiary hospital for ERCP
- Endoscopic ultrasound should be considered when other imaging tests are inconclusive
  - Provides close examination of the pancreas, biliary tree, and liver (including for stones), but requires sedation and therapeutic endoscopy training. Can be combined with ERCP if a stone is noted
- Cholecystectomy is recommended for gallstones, especially when it is associated with pancreatitis
  - Surgery and ERCP should be performed during the same admission if possible

Additional Notes/References:

https://doi.org/10.1016/j.pcl.2021.07.012
https://doi.org/10.1016/j.pan.2018.05.484
https://doi.org/10.1016/j.gie.2021.01.030

Primary Author(s): Kenneth Ng, DO
NASPGHAN Pancreas Committee

November 2024