CHRONIC PANCREATITIS (CP)

Diagnosis:

- **Definition:** Imaging findings compatible with CP (atrophy, calcifications, ductal abnormalities) and one of the following:
  1) Exocrine pancreatic insufficiency
  2) Endocrine pancreatic insufficiency
  3) Chronic abdominal pain not attributable to another cause
- **Differential Diagnosis:** Cholecystitis, acute recurrent pancreatitis, intestinal ischemia or infarction, CBD obstruction, pancreatic tumor, peptic ulcer disease

Key History to Review:

- History of chronic abdominal pain, # known pancreatitis episodes, oily/greasy stools, autoimmune diseases, pancreatic anatomical abnormalities, medications, genetic testing
- Family history of pancreatic diseases or cancer, cholecystectomy

Key Physical Exam Components:

- Abdomen: epigastric tenderness in older kids (could be any location in younger kids)
- Growth: weight loss, signs of malnutrition

Key Labs/Imaging:

- **Labs:**
  - CBC, lipase/amylase trends (note: enzymes may be normal in CP), CMP, GGT, fasting glucose, HbA1c, fat-soluble vitamins (Vitamin A, E, D, INR as reflection of Vitamin K), IgA, TTG IgA, triglyceride, fecal elastase or fecal fat
  - Testing for hereditary pancreatitis (60-70% are due to genetic mutations including but not limited to PRSS1, SPINK1, CFTR, CTRC)
  - Oral glucose tolerance test if fasting glucose or HbA1C are elevated
  - IgG subtypes to screen for autoimmune pancreatitis (High IgG4 less common in kids)
  - Consider endoscopic pancreatic function testing if undergoing EGD
- **Imaging:**
  - MRCP with IV contrast and secretin to provide better ductal definition
  - EUS may be obtained in a patient in whom you suspect CP, but other imaging modalities have not been consistent with the diagnosis
  - ERCP may be required as a therapeutic option to alleviate pancreatic duct obstruction from stones and/or stricture which may contribute to pain
- **Surgery**: May be needed if complex strictures, inflammatory head mass, or disease limited to the pancreatic tail. Consider TPIAT referral if chronic debilitating pain with unsuccessful medical measures including, advanced endoscopic procedures

Management Considerations:

- Consider referral to a multidisciplinary pancreas center
- Monitor growth and pubertal development, dietary intake, and fat-soluble vitamins
- Pancreatic enzyme replacement therapy for EPI
- Yearly screening for pancreatogenic diabetes mellitus with fasting glucose and HbA1C with reflexive OGTT if abnormal

Primary Author(s): Michelle Saad, MD, MS
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- Follow analgesic pain ladder (non-opioids → weaker opioids → strong opioids)
    - Avoid opioids if possible
- Consider neuromodulators for pain control such as pregabalin or gabapentin
- Consider DEXA scan especially in those with other risk factors such as malnutrition and vitamin D deficiency

Additional Notes/References:

https://pubmed.ncbi.nlm.nih.gov/33230082/
https://pubmed.ncbi.nlm.nih.gov/35258494/
https://pubmed.ncbi.nlm.nih.gov/35584383/

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