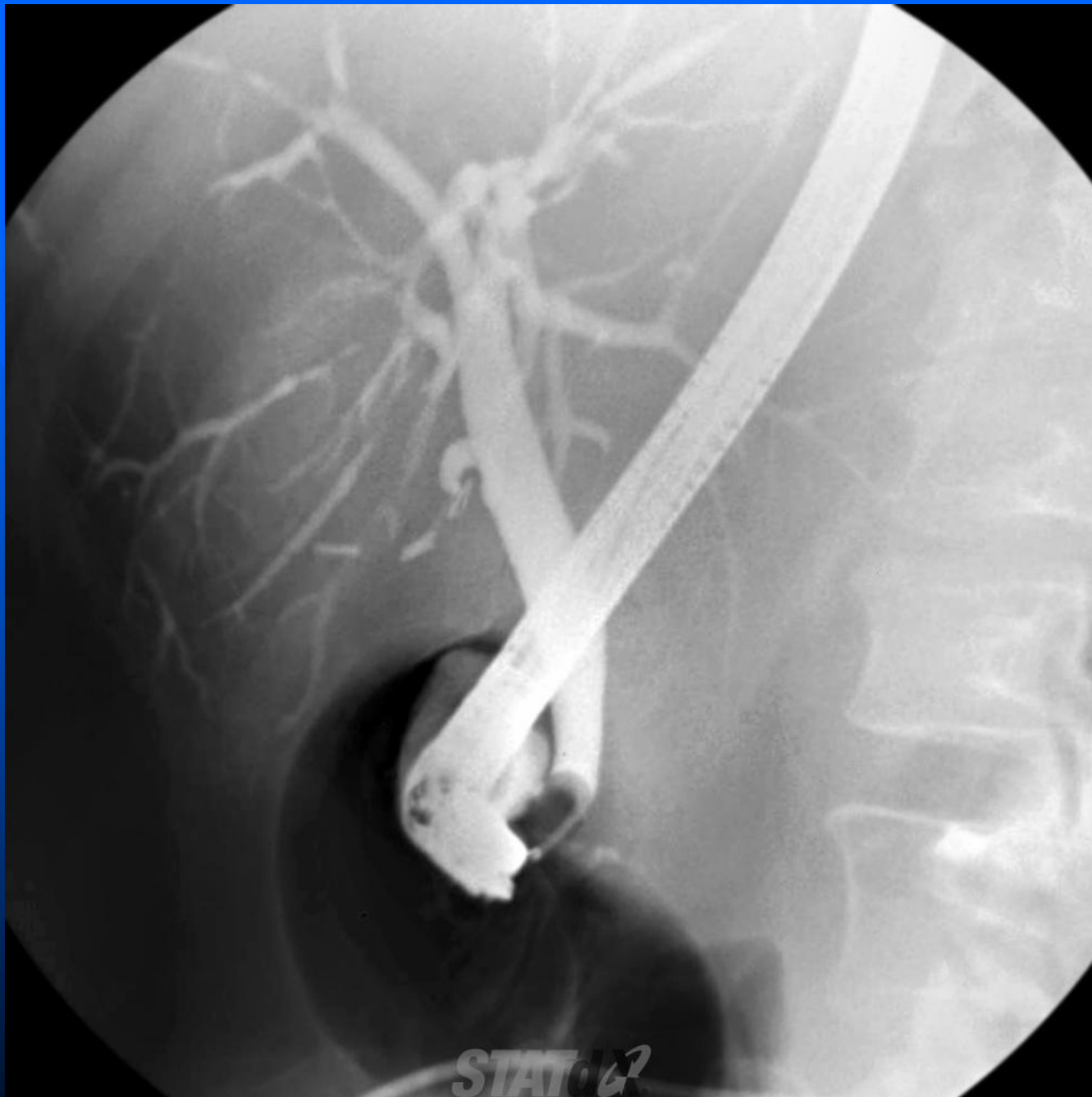


# AIDS Cholangiopathy

- Spectrum of biliary inflammation caused by AIDS-related opportunistic infections leading to biliary strictures, papillary stenosis, or acalculous cholecystitis
- Late-stage AIDS patients usually with  $CD4 < 100 \text{ cells/mm}^3$
- Now considered rare condition due to HAART
- Patients present with RUQ pain, fever, weight loss, diarrhea, and markedly elevated alkaline phosphatase
- Primary treatment is reconstituting immune function using HAART, which can reverse cholangiopathy in some cases.
- **Consider**
  - AIDS cholangiopathy may appear very similar to other forms of sclerosing cholangitis (primary sclerosing cholangitis, ischemic cholangitis, IgG4 cholangitis)
- **Image Interpretation Pearls**
  - AIDS patient with distal ampullary stenosis, intrahepatic strictures, or acalculous cholecystitis

# Imaging

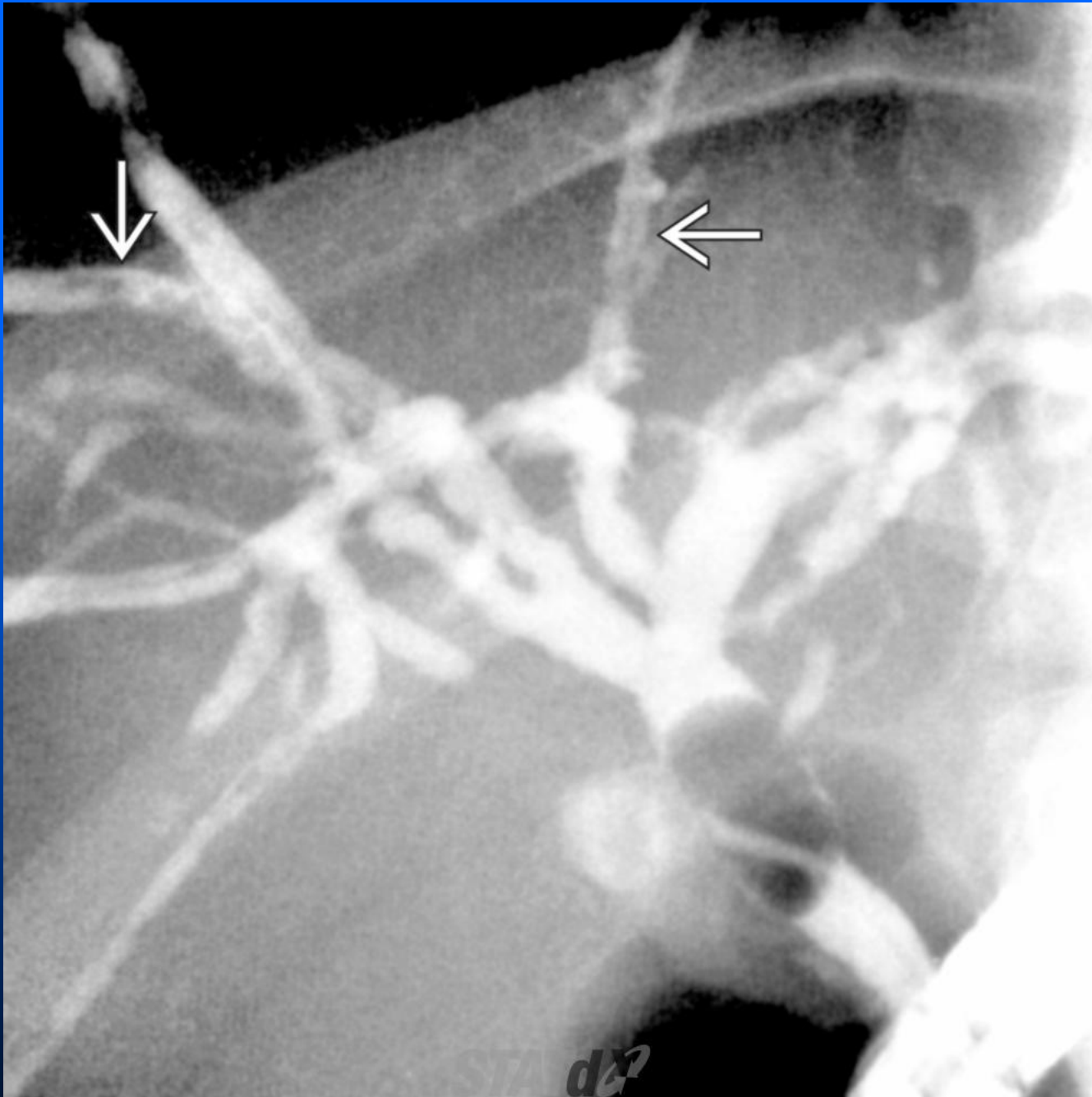
- Consider in AIDS patient with very low CD4 count presenting with multiple intrahepatic strictures, papillary stenosis, or gallbladder (GB) wall thickening
- **US:** Dilated intrahepatic ducts with common bile duct (CBD) thickening and periductal hyper-/hypoechoic areas
  - Diffuse GB thickening  $\pm$  sonographic Murphy sign in setting of acalculous cholecystitis
- **MR:** Papillary stenosis with tapered narrowing of distal CBD and proximal CBD dilatation
  - $\pm$  long-segment extrahepatic bile duct strictures
  - $\pm$  thickening and hyperenhancement of bile duct wall on T1WI C+ images in setting of acute inflammation
  - Beaded appearance of intrahepatic ducts with alternating strictures, normal ducts, and dilated ducts
  - GB wall thickening and pericholecystic inflammation
- **ERCP:** Papillary stenosis with proximal CBD dilation, strictures/ulcerations of CBD, and intrahepatic strictures
  - Combination of ampullary stenosis and intrahepatic strictures is unique to AIDS cholangiopathy



Cholangiogram demonstrates a pruned appearance of the extrahepatic biliary tree with multiple beaded strictures, attributable in this case to AIDS cholangiopathy given the patient's very low CD4 count.



ERCP shows abnormal intrahepatic ductal arborization, with foci of stricture, dilation, and abrupt termination of ducts. The common duct (white curved arrow) is dilated, and the distal duct is strictured (white solid arrow). Intrahepatic biliary strictures in AIDS cholangitis can resemble those seen in PSC.



ERCP of AIDS cholangitis in a 44-year-old man demonstrates multiple intrahepatic biliary strictures and irregular ductal contours (white solid arrow). Stool cultures were positive for *Cryptosporidium*.