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INTRODUCTION

- HIV/AIDS has been shown to affect hepatic parenchyma and biliary tree leading to inflammation and biliary strictures.
- With the advent of highly active antiretroviral therapy (HAART), it is rarely encountered, except in cases of resistance or medication non-compliance.¹

CASE DESCRIPTION

- A 48-year-old man with history of HIV and poor compliance with HAART presented with abdominal pain, nausea and diarrhea.
- Physical exam showed scleral icterus and mild abdominal tenderness, with labs showing:

AST	212
ALT	133
Alkaline Phosphatase	3885
Total Bilirubin (Direct)	16.9 (13.2)

- MRCP revealed intrahepatic biliary ductal dilatation of both lobes of liver and mild dilatation of the proximal extrahepatic CBD (9 mm) without cholelithiasis, biliary sludge or ductal stone suggesting nonspecific cholestasis.
- ERCP was performed which revealed papillary stenosis and moderately enlarged CBD (12 mm). Irregularities were noted in bilateral intrahepatic branches but not in ducts. A pancreatic and biliary sphincterotomy was performed.



CT Abdomen pelvis showing intrahepatic biliary ductal dilation

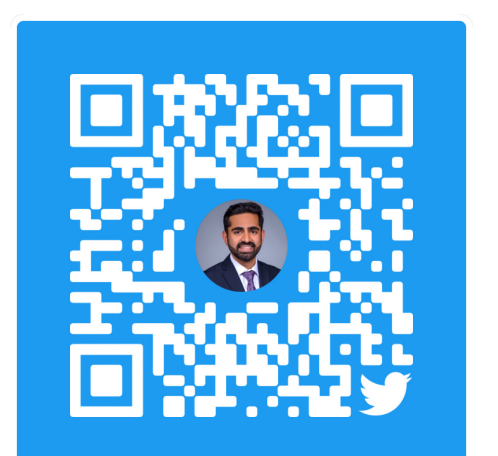
- With minimal decrease in T.bili. and ALP, repeat MRCP was performed 3 months later showing persistent intrahepatic biliary ductal dilatation with normal CBD.
- Repeat ERCP showed patent prior sphincterotomy and the biliary tree was swept with nothing found.
- Further workup revealed a CD4 count of 17 and serology positive for cryptosporidium antigen. A diagnosis of HIV-cholangiopathy was made and the patient was restarted on HAART and nitazoxanide with gradual decline in T.bili and ALP.

DISCUSSION

- HIV/AIDS-cholangiopathy is a rarely encountered biliary syndrome, usually manifesting in severely immunosuppressed AIDS patients.
- Several opportunistic pathogens have been implicated in its pathogenesis with *Cryptosporidium parvum* being the most common associated pathogen. *C. parvum* predominantly affects the biliary tract leading to apoptotic cell death of the cholangiocytes.¹
- Biliary involvement has been described in four cholangiographic patterns – papillary stenosis, extrahepatic strictures, intra and extrahepatic sclerosing lesions, and acalculous cholecystitis.²
- Diagnosis can be established usually by MRCP or ERCP which shows papillary stenosis with intrahepatic ductal dilatation. Alternating multifocal intrahepatic strictures can also be seen giving a beaded appearance.²
- The cornerstone of management involves the management of opportunistic infections and initiation of HAART. Prognosis is usually poor due to advanced stages of immunosuppression and opportunistic infections.³

REFERENCES

1. Naseer M, Dailey FE, Juboori AA, Samiullah S, Tahan V. Epidemiology, determinants, and management of AIDS cholangiopathy: A review. *World J Gastroenterol.* 2018;24(7):767-774. doi:10.3748/wjg.v24.i7.767
2. De Angelis C, Mangone M, Bianchi M, et al. An update on AIDS-related cholangiopathy. *Minerva Gastroenterol Dietol.* 2009;55(1):79-82.
3. Ko WF, Cello JP, Rogers SJ, Lecours A. Prognostic factors for the survival of patients with AIDS cholangiopathy. *Am J Gastroenterol.* 2003;98(10):2176-2181. doi:10.1111/j.1572-0241.2003.07718.x



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