AIDS cholangiopathy

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A 45-year-old man presented with diarrhea and profound weight loss over one year. His serum alkaline phosphatase was raised and ultrasonography showed dilated intrahepatic biliary ducts and upper part of common bile duct (CBD). ERCP showed papillary stenosis, dilated CBD, stenosis at the confluence and scanty dilatation of the left intrahepatic biliary ducts. He was found HIV-positive. Duodenal biopsy, rectal biopsy and stool examination could not identify any opportunistic organism. [Indian J Gastroenterol 1998; 17: 104-106]

Key words: Biliary tract dilatation

In the course of acquired immunodeficiency syndrome (AIDS), a combination of pain in the right hypochondrium, elevated serum alkaline phosphatase level and morphological abnormalities in the biliary tract has been reported. All published cases of this 'AIDS cholangiopathy' are from Europe and North America. We report the first case of AIDS cholangiopathy from a tropical country.

Case report

A 45-year-old man presented with diarrhea and profound weight loss over one year. The diarrhea was voluminous, did not contain blood, and was not associated with abdominal pain or vomiting. There was no history of fever, cough or hemoptysis. He had history of heterosexual contacts with professional sex workers. He had been treated with antibiotics and antiinflammatory drugs and had also received antitubercular therapy for 3 months without any response. Physical examination revealed emaciation, pallor and angular stomatitis. There was no lymphadenopathy or hepatosplenomegaly.

Investigations: hemoglobin 8 g/100 ml, TLC 5100/mm³, serum bilirubin 0.6 mg/dl, alkaline phosphatase 680 IU/L, AST 56 IU/L, serum albumin 2.8 g/dl. The stool was frothy and yellowish. It showed scanty leukocytes; occult blood was negative. Chest and abdominal X-rays were normal. Mantoux test was negative.

24-hour fecal fat excretion was 8 g and 24-hour urinary D-xylene excretion was 14 g/day. Fiberoptic esophago-gastro-duodenoscopy and sigmoidoscopy were normal. Abdominal ultrasonography showed dilated intrahepatic biliary radicles. The common bile duct (CBD) was dilated in its upper part. Gall bladder was distended and did not contain any calculi. Endoscopic retrograde cholangiopancreatography (ERCP) showed normal papilla and smooth tapering of the distal part of the CBD; the proximal CBD was mildly dilated and its wall was irregular and beaded (Fig. A). A stricture involved the distal part of both hepatic ducts and their confluence, the left duct showed scanty dilatations. Pancreatic duct was normal.

The patient was detected HIV-positive by ELISA and western blot. CD4 count was 18/mm³. Stool microscopy and cultures were negative for pathogens. Duodenal biopsy showed mild villous atrophy. Rectal biopsy was normal. Search for opportunistic pathogens in the duodenal and rectal tissues was negative.

Discussion

Patients with AIDS cholangiopathy present with pain in the right hypochondrium, fever and jaundice. Pain is the commonest (70%-100%) presentation and jaundice is infrequent (0%-15%). These patients are usually in advanced stage of AIDS, usually belonging to stage IV of the CDC classification and having low CD4 count (median 0.024x10⁹/L). Most patients have normal serum bilirubin; high serum alkaline phosphatase is the most consistent abnormality.

Four types of cholangiographic abnormalities have been described at ERCP: 1. papillary stenosis, defined as CBD diameter greater than 10 mm, with distal 2-3 mm tapering, with absence of drainage of contrast medium for 30 minutes; II. sclerosing cholangitis; III. papillary stenosis and sclerosing cholangitis combined; and IV. long extrahepatic bile duct stricture with or without intrahepatic sclerosing cholangitis. Type III is the commonest (50%-75%) pattern. Papillary stenosis, whether alone or combined with sclerosing cholangitis, occurs in 65%-100% of cases. In addition, subtle changes occur in the wall of the CBD which looks beaded and irregular. The left duct system is disproportionately more involved with intrahepatic ducts having irregular sacculations often containing intraductal debris or sloughed mucosa.

The etiology of AIDS cholangiopathy is uncertain.
Cryptosporidium, cytomegalovirus, microsporidia, Mycobacterium avium intracellulare, Kaposi's sarcoma and Burkitt's lymphoma have been demonstrated in the region of bile duct abnormalities or adjacent tissues.1,2,3,5 25%-50% of patients have no identifiable pathogens1,3 and antiviral treatment had no effect on cholangiogram despite clearance of virus from the duodenum.2 Vasculitis followed by irreversible fibrosis due to CMV or HIV per se,7 and unidentified viral infection, circulating immune complexes, AIDS-associated colitis - ductal sclerosis (akin to idiopathic ulcerative colitis - primary sclerosing cholangitis) are other possibilities.1

Biliary decompression (endoscopic, surgical or transhepatic) rapidly reverses the pain and biliary sepsis.1,2 Mortality is very high; the median survival reported is 7.5 months,3 though no patient died as a result of direct consequences of biliary involvement.1,2,3 Our patient was lost to follow up after he was told about his disease.

References

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Multiple abdominal venous thrombosis in HIV-seropositive patient

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HIV infection is known to be associated with endothelial dysfunction leading to thrombosis. We report a patient with multiple abdominal venous thrombosis and splenic hematoma who was seropositive for HIV-1. No cause for the hypercoagulable state was detected; prothrombin time, activated partial thromboplastin time, and levels of protein S, protein C and antithrombin III were normal. He tested negative for VDRL and antcardiolipin antibodies. [Indian J Gastroenterol 1998; 17: 105-106]

Key words: Mesenteric thrombosis, portal vein thrombosis

The risk of venous thrombosis is greater in patients with HIV seropositivity or AIDS when compared to healthy controls.1 This is attributed to decreased levels of protein S and presence of antcardiolipin antibodies. We report an HIV-seropositive patient with multiple abdominal venous thrombosis, who had no identifiable cause for the thrombosis.

Case Report

A 35-year-old chronic alcoholic man was referred with a history of continuous dull pain in the left hypochondrium of 15 days duration. He had no aggravating or relieving factors, vomiting, abdominal distension, altered bowel habits or trauma. Past medical history and family history were unremarkable. He reported multiple unprotected sexual exposures. His general and abdominal examinations were unremarkable.

Hemogram, urine and stool microscopy, liver profile and serum amylase were within normal limits at the onset of pain. Ultrasonography revealed thrombosis involving the portal, splenic and superior mesenteric veins with presence of a splenic hematoma. CT scan (Fig) confirmed these findings and also showed that the pancreas was normal and there were no reactive changes in the mesentery. He tested positive for antibodies to HIV-1 (ELISA). His prothrombin time, activated partial thromboplastin time and VDRL were normal; levels of protein S, protein C, antithrombin III and antcardiolipin antibodies were also normal.

The presence of the splenic hematoma precluded anticoagulant therapy. He was treated symptomatically and was free of pain at the time of discharge.