

# Hepatobiliary Ascaris: A Curious Wanderer.

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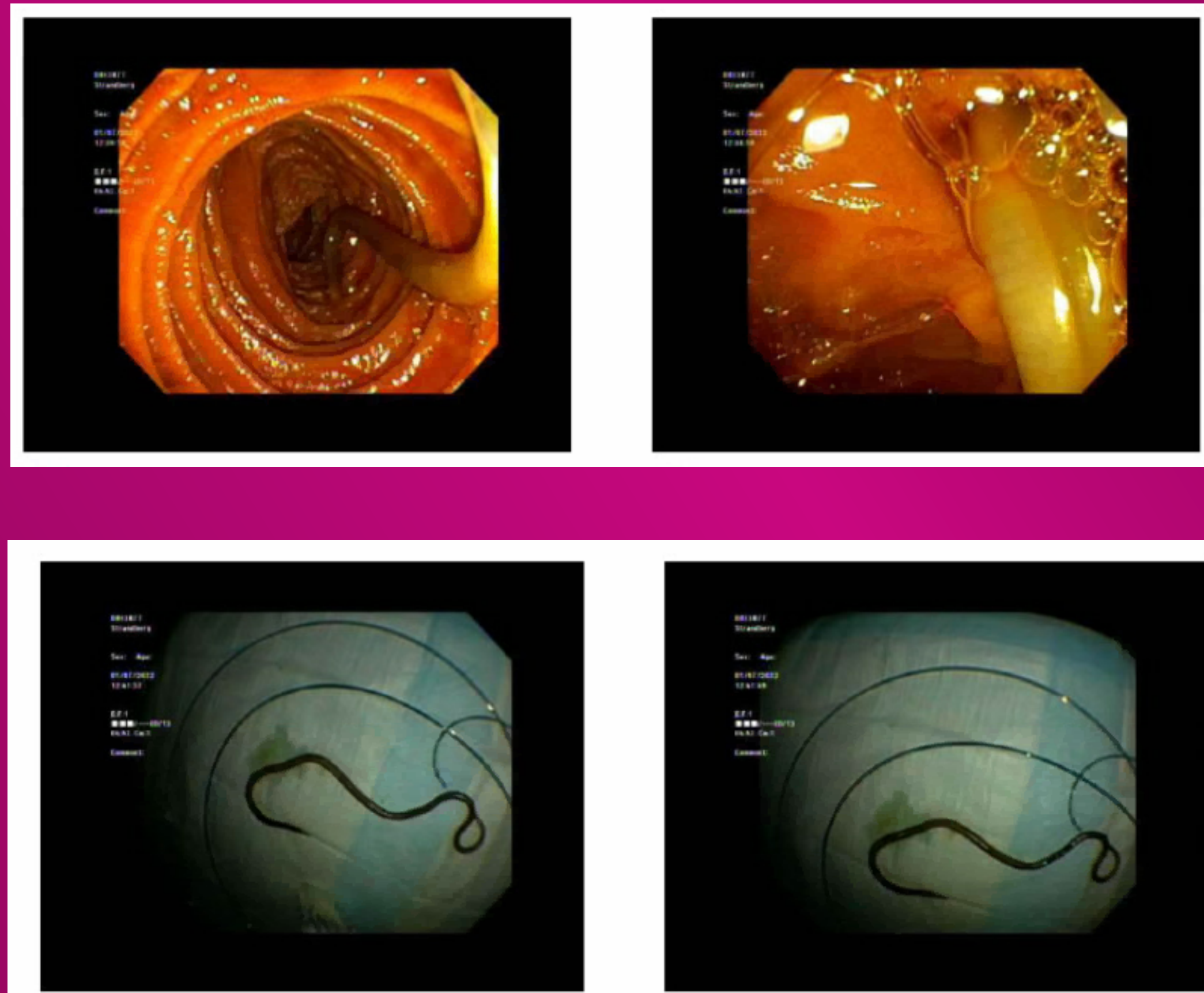
## BACKGROUND

*Ascaris lumbricoides* is a nematode. Hepatobiliary and pancreatic ascariasis (HPA) encompasses a wide spectrum of clinical diseases involving the helminth, *Ascaris lumbricoides*, ranging from biliary colic to acute cholangitis to acute pancreatitis.

## CASE PRESENTATION

A 53-year-old male with past medical history of cholelithiasis status post cholecystectomy presented to the emergency department (ED) with intermittent severe postprandial epigastric pain associated with nausea and one episode of non-bloody, non-bilious emesis. He was a long-time resident of the Northeastern US with no history of travel. Initial vital signs were normal and physical examination revealed mild epigastric tenderness. He had an alanine transaminase (ALT) 146 U/L, aspartate transaminase (AST) 170 U/L, lipase 65 U/L, total bilirubin 0.8 mg/dL, and alkaline phosphatase (ALP) 89 U/L. CT scan of the abdomen showed no acute intra-abdominal or pelvic process. Subsequently was discharged home from the ED. 8 days later, he returned complaining of sharp epigastric pain. Examination revealed anicteric sclera and right upper quadrant tenderness. Bloodwork now showed ALT of 638 U/L, AST of 500 U/L, lipase of 64 U/L, total bilirubin 1.1 mg/dL, and ALP 126 U/L. White blood cell count was 7,100/L. An abdominal ultrasound was normal. An MRI abdomen revealed multiple filling defects within the common bile duct.

*Ascaris lumbricoides* is the most common human parasitic infection in the world. It encompasses a wide spectrum of clinical diseases ranging from biliary colic to acute cholangitis to acute pancreatitis.



## DECISION MAKING

He was admitted due to concerns for choledocholithiasis. Repeat blood work showed ALT 1,040 U/L, AST 446 U/L, lipase 72 U/L, total bilirubin 1.4 mg/dL, and ALP 158 U/L. He had a fever of 100.4 F. WBC count was 5,700/L with 7.2% eosinophils. He received a dose of ceftriaxone and metronidazole and underwent ERCP. Fluoroscopy revealed filling defects in the common bile duct. A large worm originating in the biliary tree was seen emerging from the major papilla. The worm was removed with forceps and was 10 cm in length. Pathology revealed it to be *Ascaris lumbricoides*. He received a one-time dose of albendazole 400 mg. He was asymptomatic without any recurrent symptoms, was able to tolerate a diet and was discharged.

## DISCUSSION

*A. lumbricoides* is the most common human parasitic infection in the world, although it is not common in North America where it is considered non-endemic. Therefore, HPA is a relatively rare cause of biliary colic in the US. There are about 4 million people infected in US, most of who are immigrants. Our patient does not fit this demographic, as he is a native of the northeastern US.

FIGURE 3

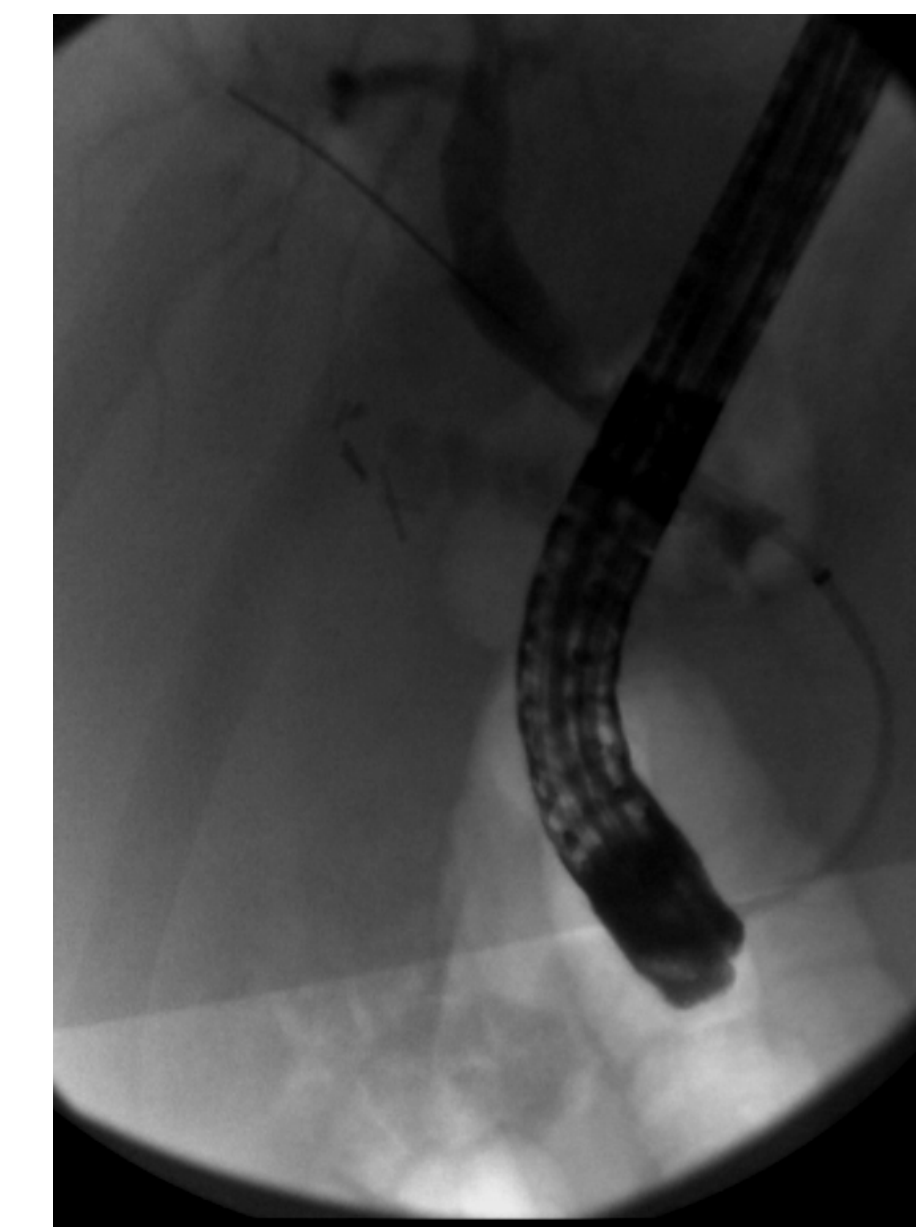
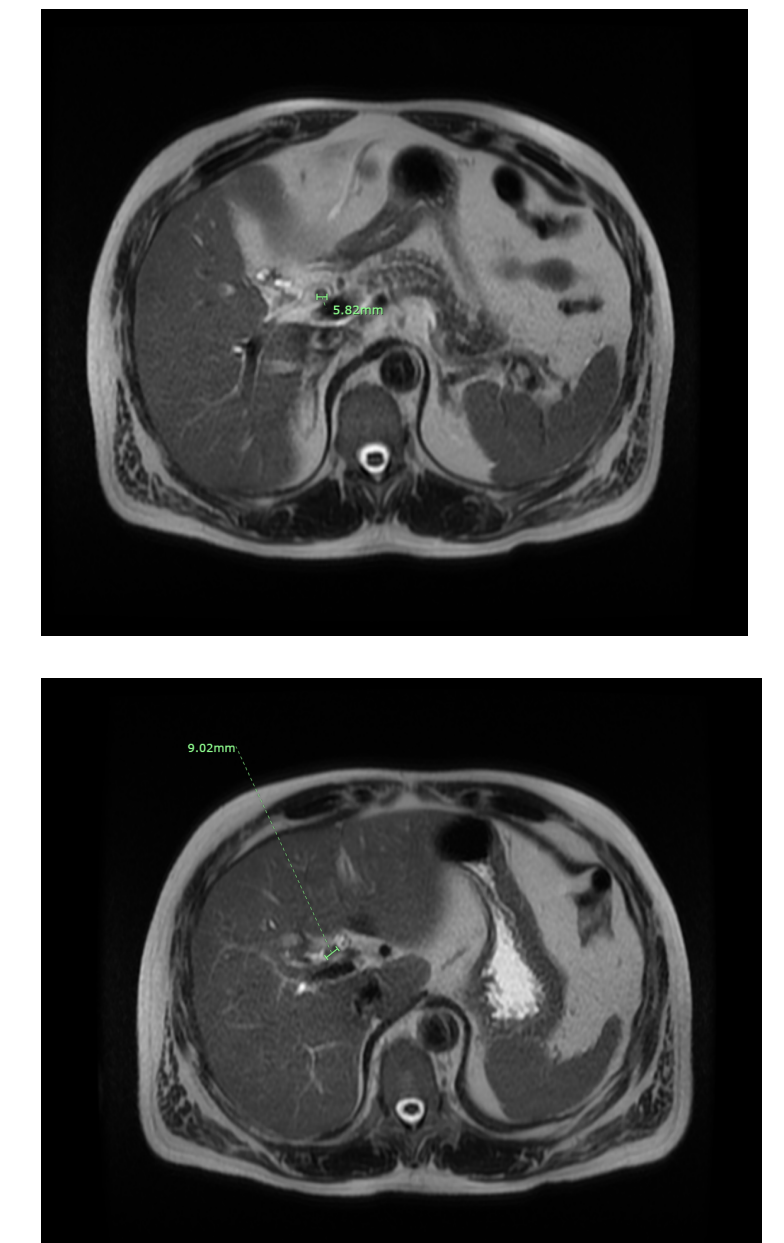


FIGURE 4



## REFERENCES

Khuroo, Mohammad S., et al. "Hepatobiliary and Pancreatic Ascariasis." *World Journal of Gastroenterology*, vol. 22, no. 33, Sept. 2016, pp. 7507–17. *PubMed*, <https://doi.org/10.3748/wjg.v22.i33.7507>.