

## INTRODUCTION

- Indeterminate biliary strictures remain a challenging clinical scenario for the pancreaticobiliary endoscopist.
- Cholangioscopy is an important tool in the evaluation of indeterminate biliary strictures.
- We present a case in which cholangioscopy was crucial in defining the etiology of an indeterminate biliary stricture.

## CASE

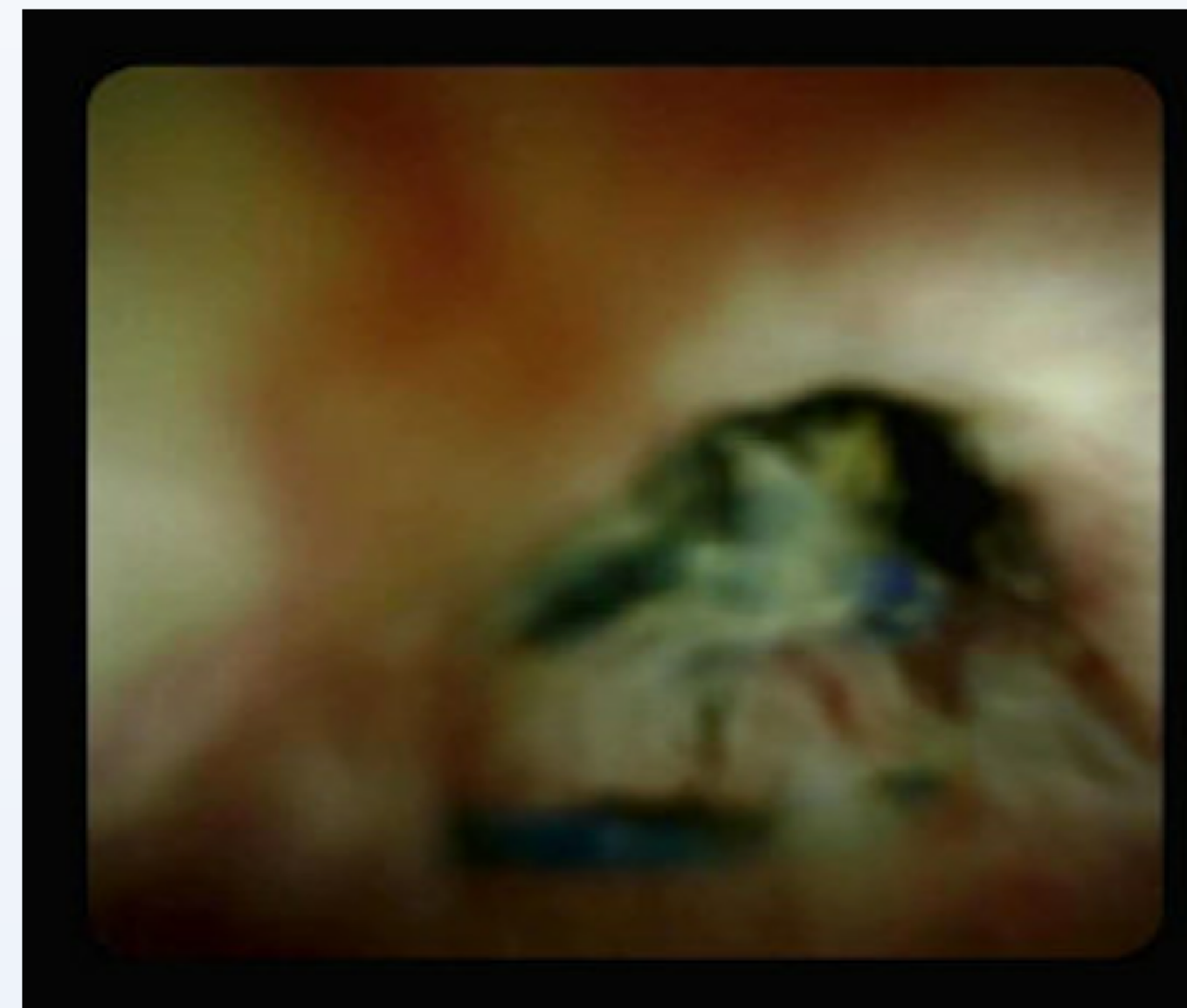
- A 76-year-old male with a remote history of a cholecystectomy presented with one week of painless jaundice. He denied weight loss, nausea, vomiting, and abdominal pain.
- **Exam:** Jaundice. Scleral icterus.
- **Labs:** Total bilirubin of 14.8, direct bilirubin of 7.6, and alkaline phosphatase of 128.
- **MRCP:** Poorly defined soft tissue lesion at the junction of the intrahepatic and extrahepatic common hepatic duct (CHD) with intrahepatic ductal dilation (IHD).

## CASE (continued)

- EUS revealed IHD dilation and a benign appearing porta hepatis lymph node, which was sampled via FNA.
- ERCP was remarkable for stenosis at the level of the bifurcation of the RHD and LHD with IHD dilation.
- Cholangioscopy revealed an inflammatory-appearing stenosis of the CHD with embedded suture material. The stricture was biopsied.
- The stenosis was dilated with a 4 mm balloon dilator and an 8.5 x 10 cm plastic biliary stent was placed with subsequent flow of bile.
- Cytology of the aspirate and pathology of the CHD stricture biopsy were both negative for malignancy.



**Figure 1:** Cholangiogram demonstrating stenosis at the level of the CHD.



**Figure 2:** Inflamed biliary stricture with embedded suture as seen on cholangioscopy.

## DISCUSSION

- Bile duct injuries sustained after laparoscopic cholecystectomy may manifest several years after surgery<sup>1</sup>.
- We suspect that our patient sustained a bile duct injury during his cholecystectomy, which was repaired with suture, leading to an inflammatory stricture.
- Brush cytology alone has a significantly lower sensitivity and accuracy for detecting cholangiocarcinoma<sup>2</sup>, therefore, a negative result would have been insufficient to exclude malignancy.
- Our case highlights the importance of cholangioscopy in the evaluation of indeterminate biliary strictures, particularly in patients whom have undergone biliary surgery.

## REFERENCES

- 1) Ma, Michael Xiang, Vanoo Jayasekeran, and Andre K. Chong. "Benign biliary strictures: prevalence, impact, and management strategies." *Clinical and Experimental Gastroenterology* 12 (2019): 83.
- 2) Gerges, Christian, et al. "Digital single-operator peroral cholangioscopy-guided biopsy sampling versus ERCP-guided brushing for indeterminate biliary strictures: a prospective, randomized, multicenter trial (with video)." *Gastrointestinal endoscopy* 91.5 (2020): 1105-1113.