

A mucosal bridge is an unusual endoscopic feature that may arise anywhere in the alimentary tract. It is a well-known finding secondary to inflammatory bowel disease [1], and sporadic cases have been described at other sites, including the esophagus, prepylorus, and vocal cord. We present here a case with two different types of biliary mucosal bridge.

A 72-year-old woman with jaundice underwent percutaneous transhepatic biliary drainage (PTBD) followed by percutaneous transhepatic cholangioscopy (PTCS). The patient was diagnosed with choledocholithiasis and moderately differentiated adenocarcinoma of the gallbladder invading the common hepatic duct, which was confirmed by cholangioscopic biopsy. PTCS also revealed two biliary mucosal bridges. The first was a thick mucosal bridge lying transversely across the lumen of the common bile duct (Figure 1). The surface of the bridge, as well as the surrounding mucosa, was coarse and erythematous. The second was a thin, elastic bridge with a smooth surface, lying transversely across the intrahepatic duct (Figure 2). The surface of the surrounding bile ducts appeared normal. Surgical excision of the gallbladder cancer was attempted, but was aborted due to

peritoneal seeding. A percutaneous biliary stent was placed for palliation.

We have carried out many diagnostic and therapeutic cholangioscopy procedures through PTBD sinus tracts, as previously reported [2, 3], and we conducted PTCS in a total of 843 patients between April 1977 and December 2000. This was the first case in which biliary mucosal bridges were identified in our experience. In addition, to our knowledge there have been no previous reports illustrating this unusual feature. Only Ando et al. [4] have reported a case of a septal membranous structure transecting the lumen of an intrahepatic duct, associated with choledochal cysts, which they termed septal stenosis.

Whether mucosal bridges are congenital or acquired can be assessed on the basis of the endoscopic appearance. An acquired mucosal bridge is thick and hard, with a coarse surface mimicking the inflammatory surrounding mucosa. A congenital mucosal bridge is often a diagnosis of exclusion, which may be supported by the presence of unremarkable surrounding mucosa and/or an elastic, stretchable nature, unlike granulation tissue [5]. In the present case, the bridge in the common bile duct was thought to be

secondary to choledocholithiasis, and the other bridge was considered to be congenital.

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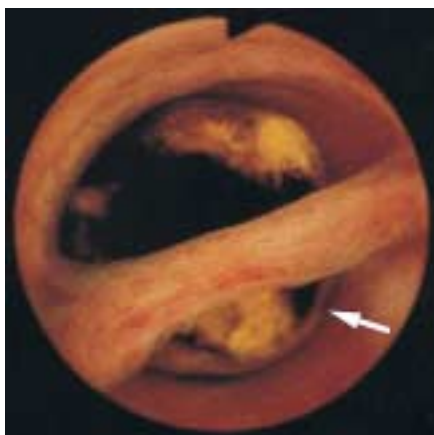
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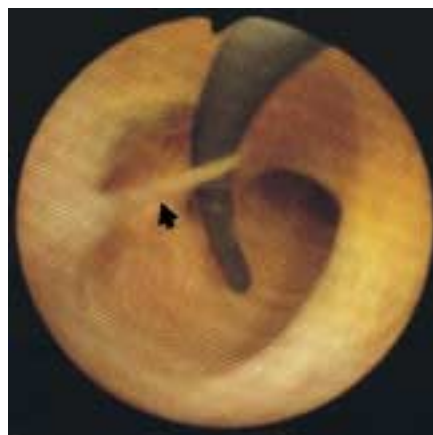
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**Figure 1** A mucosal bridge in the common bile duct. A gallstone is also seen (arrow). Both the surface of the bridge and the surrounding mucosa appear irregular and erythematous



**Figure 2** A mucosal bridge (arrow) in the intrahepatic bile ducts. The surface of both the surrounding mucosa and the bridge appear normal. The bridge is elastic and can be easily stretched