

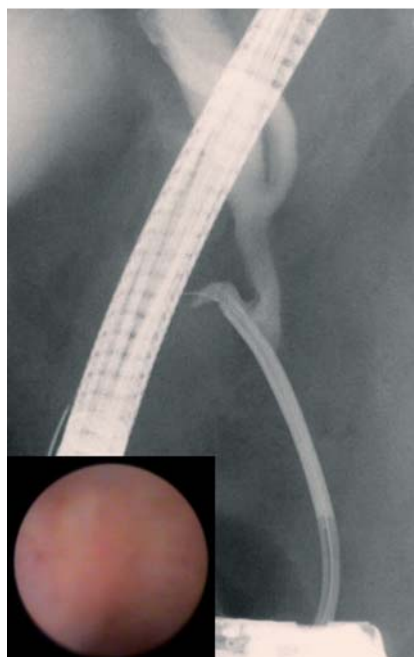
## Double common bile duct visualized by SpyGlass cholangioscopy



**Fig. 1** Cholangiography showing the multiple common bile duct stones and aberrant bile duct (arrow).

A double common bile duct is an extremely rare anomaly of the biliary tract system, which was first described by Vesalius in 1543 [1]. Recent advances in radiologic examinations have facilitated the correct diagnosis and management of this condition, but visualization of the anomaly using cholangioscopy has not been reported [2]. We report the finding of a double common bile duct with ectopic drainage into the duodenal bulb, which was successfully visualized using the SpyGlass cholangioscope (Boston Scientific, Natick, Massachusetts, USA).

A 69-year-old man was referred to our institution for endoscopic treatment of choledocholithiasis and a duodenal stricture of unknown origin. First, a duodenoscope was advanced into the second portion of the duodenum after a balloon dilation of the stricture had been performed. Endo-



**Fig. 2** Fluoroscopy showing the SpyGlass inside the ectopic bile duct. **Inset:** View during SpyGlass cholangioscopy showing normal mucosa.

scopic retrograde cholangiopancreatography (ERCP) revealed multiple common bile duct stones and an aberrant bile duct opening into the duodenal bulb (• Fig. 1). After the stones had been successfully removed by endoscopic papillary balloon dilation, a SpyGlass cholangioscope was advanced into the ectopic bile duct. Cholangioscopic imaging revealed normal bile duct mucosa (• Fig. 2; • Video 1). Finally, duodenoscopy revealed a slightly depressed lesion adjacent to the duodenal stricture (• Fig. 3); this was confirmed after injection of contrast to be the ectopic opening of the double bile duct (• Fig. 4). It is possible that the duodenal stricture may have been caused by continuous exposure to the bile from the ectopic opening. He was diagnosed as having a type II

### Video 1

SpyGlass cholangioscopy showing: a normal mucosa; a biopsy being performed using the SpyBite forceps (Boston Scientific); and the bifurcation of the double bile duct.



**Fig. 3** Duodenoscopy showing a slightly depressed lesion (arrow) adjacent to the duodenal stricture (asterisk).



**Fig. 4** Cholangiography performed through the ectopic opening showing the double bile duct.

double common bile duct according to the Goor's classification [3]. Preoperative diagnosis of a double common bile duct is not easy because of its rarity [4]. SpyGlass cholangioscopy has been reported to be a feasible management of various pancreatobiliary diseases [5]. In this case it enabled us to examine the double bile duct precisely and distinguish the ectopic bile duct from a bilioenteric fistula. SpyGlass cholangioscopy is a useful technique for the correct diagnosis of double common bile duct.

Endoscopy\_UCTN\_Code\_CCL\_1AZ\_2AK

**Competing interests:** None

**K. Kawakubo, H. Isayama, N. Sasahira, H. Kogure, T. Sasaki, N. Yamamoto, Y. Nakai, K. Hirano, M. Tada, K. Koike**  
Department of Gastroenterology, Graduate School of Medicine, The University of Tokyo, Japan

## References

- 1 *Teilum D.* Double common bile duct. Case report and review. *Endoscopy* 1986; 18: 159–161
- 2 *Park MS, Kim BC, Kim T et al.* Double common bile duct: curved-planar reformatted computed tomography (CT) and gadobenate dimeglumine-enhanced MR cholangiography. *J Magn Reson Imaging* 2008; 27: 209–211
- 3 *Goor DA, Ebert PA.* Anomalies of the biliary tree. Report of a repair of an accessory bile duct and review of the literature. *Arch Surg* 1972; 104: 302–309
- 4 *Yamashita K, Oka Y, Urakami A et al.* Double common bile duct: a case report and a review of the Japanese literature. *Surgery* 2002; 131: 676–681
- 5 *Draganov PV, Lin T, Chauhan S et al.* Prospective evaluation of the clinical utility of ERCP-guided cholangiopancreatography with a new direct visualization system. *Gastrointest Endosc*, in press 2011

## Bibliography

**DOI** 10.1055/s-0030-1256837

*Endoscopy* 2012; 44: E136–E137

© Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

## Corresponding author

**K. Kawakubo, MD**

Department of Gastroenterology, Graduate School of Medicine

The University of Tokyo

7-3-1 Hongo Bunkyo-ku

Tokyo, 113-8655

Japan

Fax: +81-3-3814-0021

kkawakubo-gi@umin.ac.jp