Massive hemobilia following transpapillary bile duct biopsy treated by using a covered self-expandable metal stent

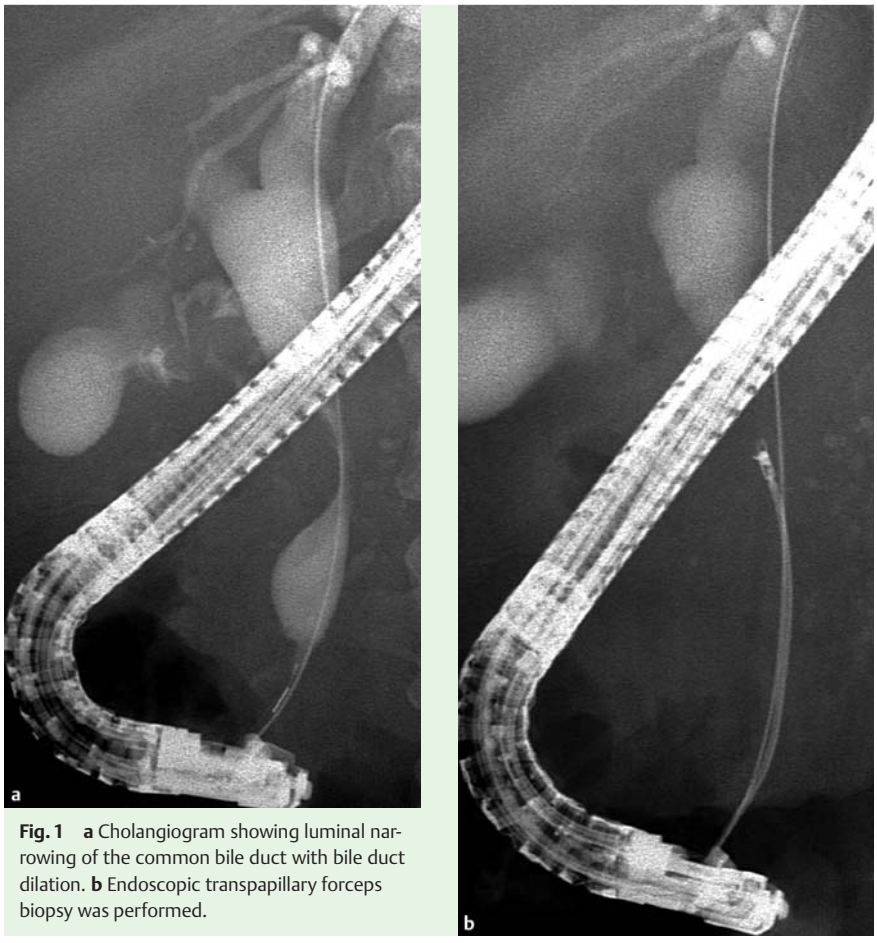

Fig. 1 **a** Cholangiogram showing luminal narrowing of the common bile duct with bile duct dilation. **b** Endoscopic transpapillary forceps biopsy was performed.

Severe hemobilia after a forceps biopsy is very rare [1,2]. The management of uncontrolled hemobilia after endoscopic procedures includes percutaneous radiologic intervention or surgery [3,4]. Recently, successful endoscopic hemostasis using covered self-expandable metal stents (CSEMS) for uncontrolled bleeding following sphincterotomy, stent removal, or papillary balloon dilation has been reported [3–5]. We report a case of massive hemobilia after a transpapillary forceps biopsy of the bile duct and successful endoscopic hemostasis with placement of a CSEMS.

A 51-year-old woman was admitted because of abdominal pain and jaundice. Abdominal CT showed cancer of the pancreatic head with a stricture of the common bile duct (CBD). Cholangiogram showed dilatation of the proximal bile duct with abrupt luminal narrowing of the CBD (▶ **Fig. 1a**). After endoscopic biliary sphincterotomy, transpapillary forceps biopsy was performed. A rat-tooth biopsy forceps (FB-39Q-1, Olympus, Tokyo, Japan) was used for tissue sampling at the constricted segment of the CBD (▶ **Fig. 1b**), but massive hemobilia occurred immediately afterwards (▶ **Fig. 2**, ▶ **Video 1**). To control the hemobilia, balloon tamponade with a controlled radial expansion balloon (Boston Scientific, Natick, MA, USA; 10 mm, 8 atm, 60 seconds) was attempted three times (▶ **Fig. 3a**). As the uncontrolled hemobilia continued, a partially covered SEMS (10 mm diameter, 8 cm long; Bonastent, Standard Sci-Tech, Seoul, Korea) was inserted to achieve hemostasis through compression exerted by the expandable stent (▶ **Fig. 3b**). Once the CSEMS had been placed, the hemobilia decreased and then stopped. The patient's hemodynamic profile and vital signs were stable, and there was no further bleeding.

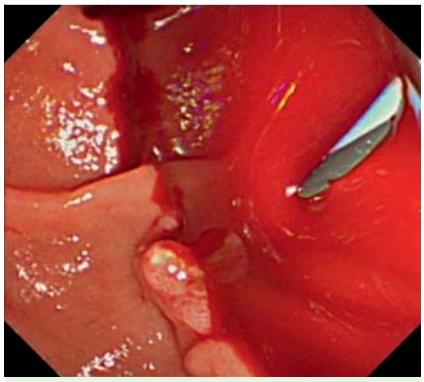

Fig. 2 After the transpapillary forceps biopsy, massive hemobilia developed.

Video 1

After a forceps biopsy was taken, sudden massive hemobilia occurred, flowing out of the duodenum.

Complications related to transpapillary forceps biopsies are infrequent; usually, iatrogenic hemobilia is minor and can be controlled with conservative treatment [1]. Uncontrolled massive hemobilia after a transpapillary forceps biopsy has not previously been reported. Recently, placement of a CSEMS has been introduced as an effective means of endoscopic hemostasis for bleeding that could not be controlled with conventional methods [3–5]. If massive bleeding from the bile duct occurs during endoscopic retrograde cholangiopancreatography, hemostasis can be achieved promptly using a CSEMS, without radiological intervention or surgery. Endoscopic treatment using a CSEMS could be a useful way of providing effective hemostasis in selected patients with uncontrolled hemobilia of the extrahepatic bile duct.

Endoscopy_UCTN_Code_TTT_1AR_2AD

Competing interests: None

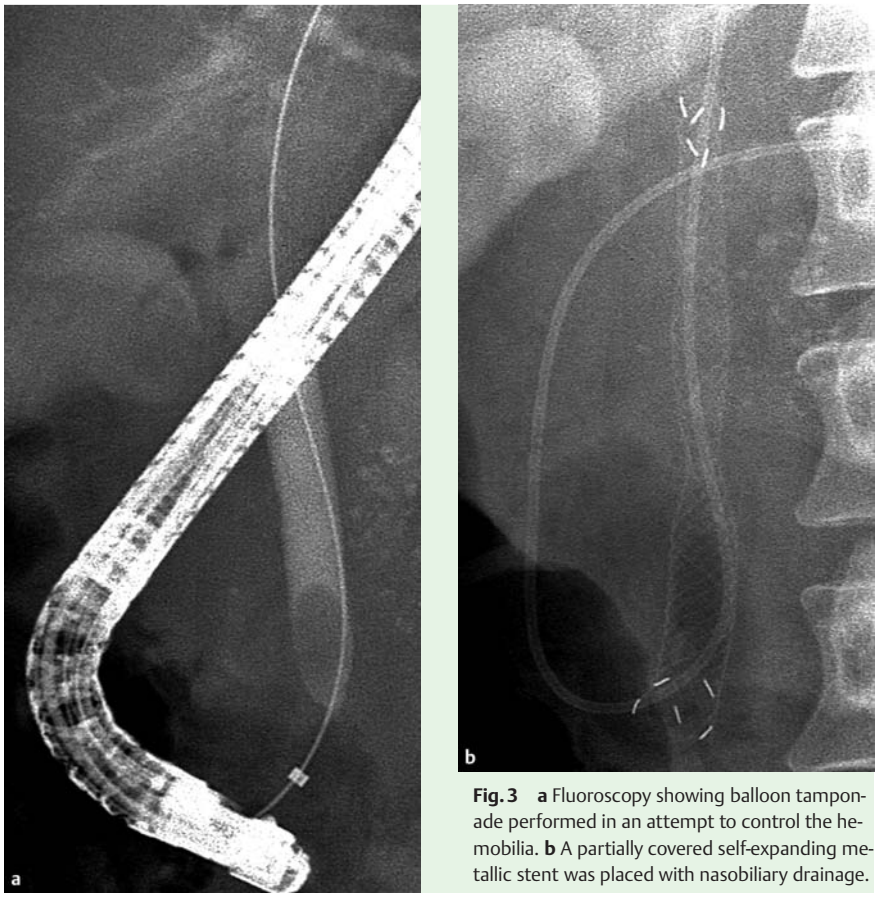

Fig. 3 **a** Fluoroscopy showing balloon tamponade performed in an attempt to control the hemobilia. **b** A partially covered self-expanding metallic stent was placed with nasobiliary drainage.

Jeong-Yeop Song, Jong Ho Moon, Hyun Jong Choi, Dong Choon Kim, Moon Han Choi, Tae Hoon Lee, Sang-Woo Cha, Young Deok Cho, Sang-Heum Park

Digestive Disease Center and Research Institute, Department of Internal Medicine, SoonChunHyang University School of Medicine, Bucheon and Seoul, Korea

References

1 *Jailwala J, Fogel EL, Sherman S* et al. Triple-tissue sampling at ERCP in malignant biliary obstruction. Gastrointest Endosc 2000; 51: 383 – 390
2 *Ikeda M, Maetani I, Terada K* et al. Usefulness of endoscopic retrograde biliary biopsy using large-capacity forceps for extrahepatic biliary strictures: a prospective randomized study. Endoscopy 2010; 42: 837 – 841
3 *Itoi T, Yasuda I, Doi S* et al. Endoscopic hemostasis using covered metallic stent placement for uncontrolled post-endoscopic sphincterotomy bleeding. Endoscopy 2011; 43: 369 – 372
4 *Valats JC, Funakoshi N, Bauret P* et al. Covered self-expandable biliary stents for the treatment of bleeding after ERCP. Gastrointest Endosc 2013; 78: 183 – 187
5 *Aslinia F, Hawkins L, Darwin P* et al. Temporary placement of a fully covered metal stent to tamponade bleeding from endoscopic papillary balloon dilation. Gastrointest Endosc 2012; 76: 911 – 913

Bibliography

DOI http://dx.doi.org/10.1055/s-0034-1365115
Endoscopy 2014; 46: E161–E162

Stuttgart · New York
ISSN 0013-726X

Corresponding author

Jong Ho Moon, MD, PhD
SoonChunHyang University School of Medicine
Digestive Disease Center
SoonChunHyang University Bucheon Hospital
170 Jomaru-ro, Wonmi-gu
Bucheon 420-767
Korea
Fax: +82-32-6215080
jhmoon@schmc.ac.kr