

## Fully covered self-expandable metal stent treatment of spurting bleeding into the biliary tract after endoscopic ultrasound-guided fine-needle aspiration of a solid lesion of the pancreatic head

A 67-year-old man with a pancreatic head lesion was referred for endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) diagnosis and staging. EUS revealed a 35-mm, hypoechoic, irregular lesion of the pancreatic head. The lesion had no cleavage plane with the portal vein, and it had clearly invaded the bile duct and duodenal wall. The gastroduodenal artery was interfering with the EUS-FNA, so it was necessary to puncture the marginal area of the lesion adjoining the bile duct (▶ Fig. 1 a).

After five inadequate specimens had been obtained with a 22-gauge needle for rapid on-site evaluation, a sixth pass immediately yielded evidence of blood spurting into

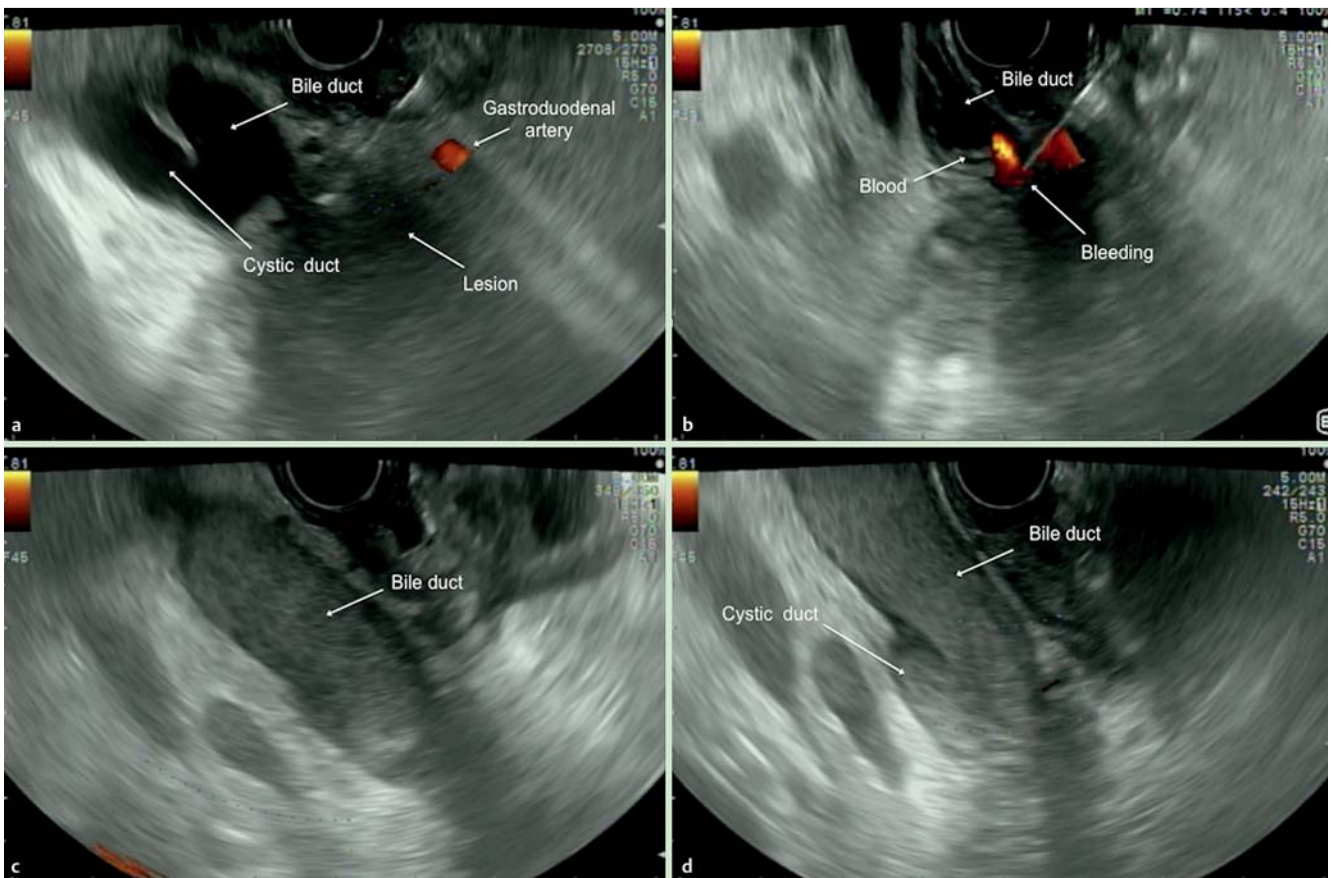
the bile duct and spreading into the cystic duct up to the gallbladder (▶ Fig. 1 b–d). We tried to exert pressure by deflecting the tip of the echo-endoscope and also to tamponade the bleeding with balloon inflation, but without success. We then performed endoscopic retrograde cholangiopancreatography (▶ Fig. 2) to remove a large amount of clot from the bile duct, after which we saw evidence of continuous hemobilia (▶ Fig. 3 a). We decided to place a fully covered self-expandable metal stent (Niti-S; TaeWoong Medical, Gyeonggi-do, South Korea) for hemostasis and biliary drainage, which resulted in immediate cessation of the bleeding (▶ Fig. 3 b). No bleeding occurred over the following days.

Bleeding after EUS-FNA is quite rare and often mild, with a reported frequency of 1% to 4.4% [1]. Extraluminal bleeding is even rarer, with a frequency of 1.3% [2]. To the best of our knowledge, this is the first reported case of bleeding into the biliary tract after EUS-FNA of a solid lesion of the pancreatic head.

Several cases have been reported of the efficacious treatment of major papilla bleeding after sphincterotomy with placement of a self-expandable metal stent [3–5], and we decided to draw on the reported experience to treat this patient with unusual bleeding. The mechanical pressure exerted by the self-expandable metal stent on the pancreatic lesion was effective in stopping the bleeding into biliary tract, which otherwise would have had to be managed with emergency endovascular treatment or surgery.

Endoscopy\_UCTN\_Code\_CPL\_1AL\_2AD

Competing interests: None



**Fig. 1** A 67-year-old man undergoes endoscopic ultrasound-guided fine-needle aspiration of a pancreatic head lesion. **a** The procedure is performed at the marginal area of the lesion adjoining the bile duct to avoid perforating the gastroduodenal artery. **b** Endoscopic ultrasound (EUS) Doppler signal of spurting bleeding from a duodenal lesion into the biliary tree. **c, d** EUS images of blood filling the bile duct and cystic duct.



**Fig. 2** Radiologic image obtained during endoscopic retrograde cholangiopancreatography shows blood filling the bile duct.



**Fig. 3** **a** Endoscopic image of hemobilia. **b** Self-expandable metal stent placed in the bile duct.

**Luca Barresi, Iliaria Tarantino, Dario Ligresti, Gabriele Curcio, Antonino Granata, Mario Traina**

Endoscopy Service, Department of Diagnostic and Therapeutic Services, Mediterranean Institute for Transplantation and Advanced Specialized Therapies (ISMETT), Palermo, Italy

#### References

- 1 *Fujii LL, Levy MJ.* Basic techniques in endoscopic ultrasound-guided fine needle aspiration for solid lesions: adverse events and avoiding them. *Endosc Ultrasound* 2014; 3: 35–45
- 2 *Affi A, Vazquez-Sequeiros E, Norton ID et al.* Acute extraluminal hemorrhage associated with EUS-guided fine needle aspiration: frequency and clinical significance. *Gastrointest Endosc* 2001; 53: 221–225
- 3 *Shah JN, Marson F, Binmoeller KF et al.* Temporary self-expandable metal stent placement for treatment of post-sphincterotomy bleeding. *Gastrointest Endosc* 2010; 72: 1274–1278
- 4 *Canena J, Liberato M, Horta D et al.* Short-term stenting using fully covered self-expandable metal stents for treatment of refractory biliary leaks, postsphincterotomy bleeding, and perforations. *Surg Endosc* 2013; 27: 313–324
- 5 *Di Pisa M, Tarantino I, Barresi L et al.* Placement of covered self-expandable metal biliary stent for the treatment of severe post-sphincterotomy bleeding: outcomes of two cases. *Gastroenterol Res Pract* 2010: 138748

#### Bibliography

**DOI** <http://dx.doi.org/10.1055/s-0034-1391239>  
*Endoscopy* 2015; 47: E87–E88  
 © Georg Thieme Verlag KG  
 Stuttgart · New York  
 ISSN 0013-726X

#### Corresponding author

**Luca Barresi, MD**  
 Gastroenterology and Endoscopy Service  
 ISMETT  
 Via Tricomi 5  
 Palermo 90127  
 Italy  
 Fax: +39 091 21 92 400  
 lbarresi@ismett.edu