TC-325 application leading to transient obstruction of a post-sphincterotomy biliary orifice

TC-325 (Hemospray, Cook Medical Inc., Bloomington, Indiana, USA), a novel endoscopic hemostatic powder has been approved in many countries for nonvariceal gastrointestinal bleeding. It consists of a proprietary inorganic powder, which, when put in contact with moisture, becomes coherent and adhesive, creating a mechanical barrier and effecting hemostasis. Preliminary results in benign and malignant upper and lower gastrointestinal bleeding are promising [1–4]. Optimal indications and technical limitations are still being characterized [5].

We recently treated a patient presenting with hematemesis 12 hours after choledocholithiasis removal, in whom endoscopy confirmed oozing from the sphincterotomy site. Hemostasis occurred immediately following application of 5g (1/4 canister) Hemospray; however, resulting arrest of bile flow and caking of the orifice with the powder were noted. Biliary patency was quickly restored with vigorous water irrigation and prodding open of the papillo-tome orifice with a sphincterotomy tip; prolonged hemostasis was achieved with epinephrine injection. Subsequent follow-up at 4 months after the procedure did not reveal any clinical stigmata of gastrointestinal bleeding (Fig. 1).

TC-325 appears highly effective in achieving initial hemostasis [1–5], yet technical difficulties related to the first-generation delivery system have included blockage of the 10-Fr catheter or the accessory channel of the endoscope if there is premature contact with moisture. Initial flushing of the accessory channel with air using a syringe before introduction of the catheter is thus recommended. Additional limitations include kinking of the delivery system’s soft catheter sheath when the endoscope is looped or positioned over a duodenoscope elevator. Recently, 7-Fr and 10-Fr catheters have been marketed as part of a second-generation delivery system. TC-325 powder application so far appears quite safe, with no reported bowel obstruction or systemic embolization [1–5]. Here we have reported transient biliary obstruction following successful use of Hemospray in post-sphincterotomy hemorrhage. Caution should therefore be taken when applying hemostatic powders near small orifices adjacent to the bowel lumen.

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