

Endoscopic resolution of acute cholecystitis secondary to biliary fully covered metal stent

M. Silva, P. Moutinho-Ribeiro, R. Gaspar, A. Peixoto, G. Macedo

Gastroenterology Department, Centro Hospitalar de São João, Porto Medical School, Porto, Portugal.

To the Editor

A 67-year-old man, with history of alcoholic chronic pancreatitis (CP), presented in the emergency department with intense pain in the right hypochondrium, and fever. Six months before, he underwent an endoscopic retrograde cholangiopancreatography (ERCP) with placement of a single plastic stent (8.5 Fr), for treatment of a common bile duct (CBD) stricture secondary to the CP. Four days before presentation, another ERCP was performed and the plastic stent was removed, and replaced for a fully covered self-expandable metal stents (FC-SEMS) [Evolution® Biliary, nitinol made, 60x10 mm (Cook Medical, Bloomington, Indiana, USA)], due to persistence of the CBD stricture, and the inability to place multiple plastic stents.

Physical examination was remarkable for mild abdominal tenderness and a palpably enlarged gallbladder. Abdominal computed tomography (CT) scan confirmed the diagnosis of acute cholecystitis, with important distension and thickening of the gallbladder wall (Fig. 1). An urgent ERCP was performed and the cholangiogram confirmed the non-opacification of the cystic duct, in relation to obstruction by the previously placed FC-SEMS. This stent was removed with rat-tooth forceps, and two double pigtail plastic stents were placed, one with 7 Fr and 7 cm and another with 10 Fr and 3 cm, with proximal ends in the gallbladder and CBD, respectively. Both stents were deployed across the ampulla. The patient completed 14 days of intravenous antibiotic therapy with progressive clinical improvement.

CP is one of the most common causes of benign biliary strictures (1). The incidence of CP-related CBD stricture is widely variable and the clinical presentation varies from asymptomatic cholestasis to symptomatic jaundice or cholangitis (1).

CP-related CBD strictures are much more difficult to dilate compared to CBD strictures related to other benign causes (1). The simultaneous and temporary placement of multiple plastic stents is the current standard, as recently recommended by ESGE (2). However, this approach requires frequent endoscopic procedures, may be impaired by poor compliance and intercurrent adverse events, increasing morbidity and raising costs

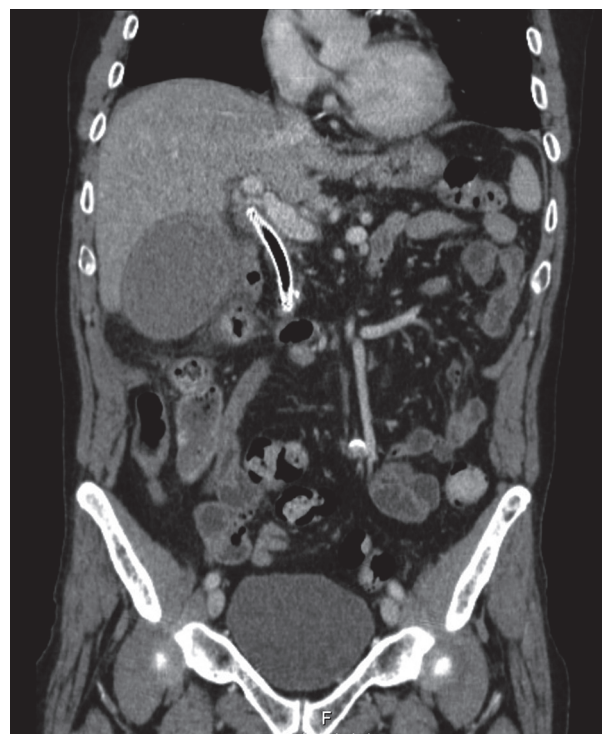


Fig. 1. — Abdominal CT imaging showing distension and thickening of the gallbladder wall and the previously placed FC-SEMS in the CBD.

(3). FC-SEMS can achieve larger diameter, providing longer stent patency with less endoscopic interventions, and are gaining acceptance for treatment of benign biliary strictures (4).

Knowing that cholecystitis can be a complication of ERCP, it is still controversial if the placement of FC-SEMS increases this risk, due to occlusion of the cystic duct (5). The authors describe a case of acute cholecystitis due to obstruction of the cystic duct by a FC-SEMS, that was successfully managed conservatively with antibiotics and endoscopic drainage.

Correspondence to : Marco Silva, Gastroenterology Department, Centro Hospitalar de São João, Alameda Professor Hernâni Monteiro, 4200-319 Porto, Portugal.
E-mail :marcostasilva87@gmail.com

Submission date : 11/06/2017
Acceptance date : 13/09/2017

Competing interests

The authors declare not to have any competing interests.

Abbreviations : CP : chronic pancreatitis ; ERCP : endoscopic retrograde cholangiopancreatography ; CBD : common bile duct ; FC-SEMS : fully covered self-expandable metal stent ; CT : computed tomography.

References

1. TRINGALI A., BOVE V., COSTAMAGNA G. Endoscopic approach to benign biliary obstruction. *Gastrointest. Interv.*, 2015, **4** : 1-8.
2. DUMONCEAU J.M., TRINGALI A., BLERO D., DEVIÈRE J., LAUGIERS R., HERESBACH D., COSTAMAGNA G. European Society of Gastrointestinal Endoscopy. Biliary stenting: indications, choice of stents and results: European Society of Gastrointestinal Endoscopy (ESGE) clinical guideline. *Endoscopy*, 2012, **44** : 277-298.
3. CHAPUT U., VIENNE A., AUDUREAU E., BAURET P., BICHARD P., COUMAROS D., *et al.* Temporary placement of fully covered self-expandable metal stents for the treatment of benign biliary strictures. *United European Gastroenterol. J.*, 2016, **4** : 403-412.
4. DEVIÈRE J., NAGESHWAR REDDY D., PÜSPÖK A., PONCHON T., BRUNO M.J., BOURKE M.J., *et al.* Successful Management of Benign Biliary Strictures With Fully Covered Self-Expanding Metal Stents. *Gastroenterology*, 2014, **147** : 385-395.
5. COTÉ G.A., SLIVKA A., TARNASKY P., MULLADY D.K., ELMUNZER B.J., ELTA G., *et al.* Effect of Covered Metallic Stents Compared With Plastic Stents on Benign Biliary Stricture Resolution A Randomized Clinical Trial. *JAMA*, 2016, **315** : 1250-1257.