Delayed successful treatment of iatrogenic colon perforation using an over-the-scope clip

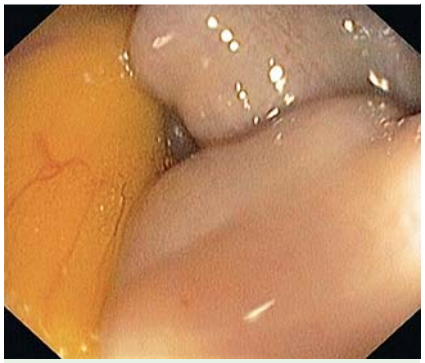

Fig. 1 Colon perforation with visualization of the epiploon.

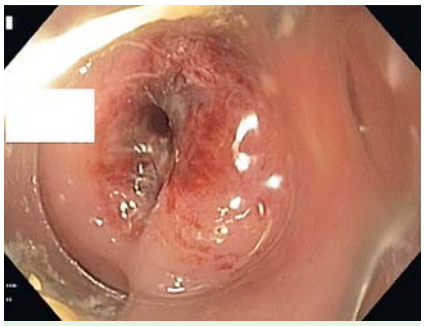

Fig. 2 Perforation orifice and 11/6t over-the-scope clip.

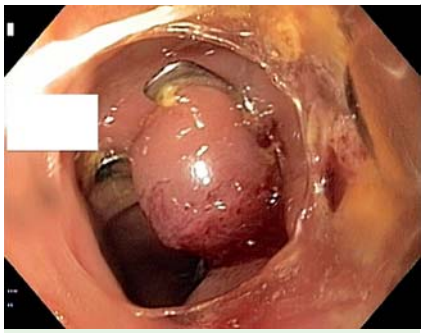

Fig. 3 Over-the-scope in place.

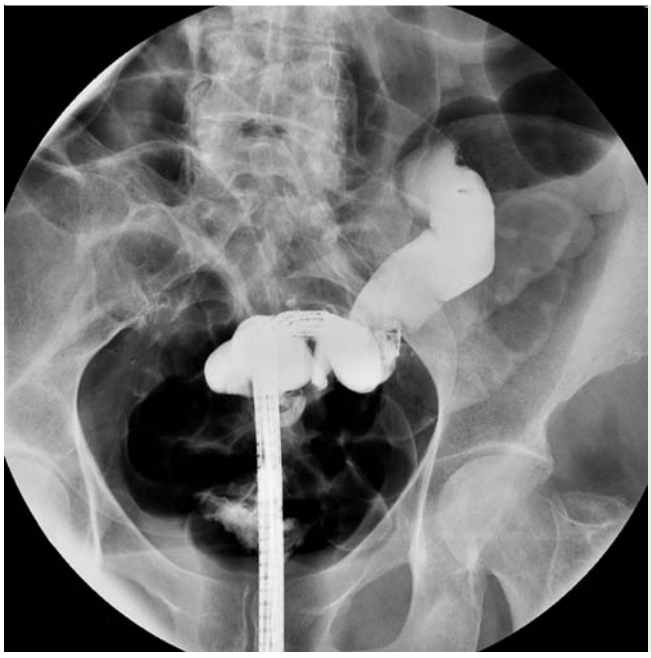

Fig. 4 Watertight closure with no extravasation of contrast medium.

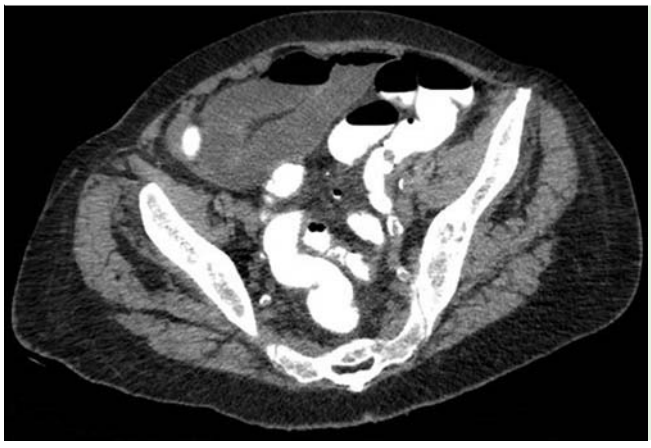

Fig. 5 CT scan with bowel opacification confirmed a sealed clip.

Over-the-scope clip closure of iatrogenic gastrointestinal tract perforations has been successfully demonstrated, and is usually performed in the immediate perioperative setting [1,2]. We report the first case, to our knowledge, of delayed successful treatment of an iatrogenic colon perforation using an over-the-scope clip.

An 80-year-old woman underwent routine colonoscopy. Her medical history was unremarkable apart from unexplained thrombocytopenia (40 000 platelets/dL). During endoscopy, a perforation occurred at the level of the sigmoid junction with the left colon (▶ **Fig. 1**). At that time, after multidisciplinary discussion, and in view of the successful colonic preparation and the thrombocytopenia, a mini-invasive endoscopic treatment was proposed (the patient being on antibiotics). Two and a half hours later the patient was transferred to our unit for an attempt at clip closure. Using a gastroscope and CO2 insufflation, a 7-mm perforation orifice was visualized. An OTSC 11/6t clip (Ovesco Endoscopy GmbH, Tübingen, Germany) was then delivered, with aspiration of the edges of the orifice (▶ **Fig. 2**, ▶ **Fig. 3**). Contrast medium study through the endoscope performed at that time did not show any fluid extravasation (▶ **Fig. 4**).

The day after the procedure, the patient presented localized peritoneal irritation and fever (38 °C). Lab tests showed no hyperleukocytosis, but the C-reactive protein level had increased to 204 U/L. Spiral CT with bowel opacification performed then confirmed a sealed clip closure with no free fluid or air in the peritoneal cavity (▶ **Fig. 5**). The patient was kept fasting until bowel transit was re-established 2 days later. She was symptom-free by the

postoperative third day. On day 5, she was discharged from the hospital. She is clinically well and symptom-free.

Delayed treatment of an iatrogenic colonic perforation with an over-the-scope clip is a feasible and effective technique that should be considered by expert endoscopists. However, the peritoneal cavity may become contaminated during the delay between perforation and definitive treatment.

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Competing interests: None

Gianfranco Donatelli[1], Bertrand M. Vergeau[1], Jean-Loup Dumont[1], Claude Altmann[1], Stravros Dritsas[2], Parag Dhumane[3], Thierry Tuszynski[1], Bruno Meduri[1]

[1] Unité d'Endoscopie Interventionnelle, Hôpital Privé des Peupliers, Générale de Santé, Paris, France
[2] Service d'Hépatologie, Hôpital Minjoz, Besançon, France
[3] Department of General and Laparoscopic Surgery, Lilavati Hospital and Research Center, Bandra (W), Mumbai, India

References

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2 *Dìez-Redonod P, Bianco JL, Lorenzo-Pelayo S* et al. A novel system for endoscopic closure of iatrogenic colon perforations using the Ovesco clip and omental patch. Rev Esp Enferm Dig 2012; 104: 550 – 552

Bibliography

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Corresponding author
Dr. Gianfranco Donatelli
Hôpital Privé des Peupliers, Générale de Santé
8 Place de l'Abbé G. Hénocque
75013 Paris
France
donatelligianfranco@gmail.com