Clinics and Research in Hepatology and Gastroenterology (2019) xxx, xxx.e1—xxx.e2

Available online at
ScienceDirect
www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com/en

LETTER TO THE EDITOR

Iatrogenic perforation and endoscopic closure: It's time to replace surgery?

KEYWORDS
Endoscopic perforation;
OTSC;
OVESCO

Dear Sir,

Iatrogenic perforations occurring during endoscopic procedures are, in most of the hospitals and private clinics, surgically managed, especially in low-volume centers [1,2]. Most cases of iatrogenic perforation occur during therapeutic endoscopic procedures, particularly in the context of endoscopic mucosal resection (EMR) and endoscopic submucosal dissection (ESD). Moreover, gastrointestinal (GI) perforation can occur also during diagnostic endoscopy [3—5], with a rate of 0.01—0.6%, while during therapeutic endoscopy is described from 0.6% to 5.5%. Nowadays, different studies were published about the use of the over-the-scope clip (OTSC®, Ovesco Endoscopy, Tubingen, Germany) for the closure of the GI defect, showing an overall clinical success of the 85% [6]. A recent case report showed as delayed GI perforation may be endoscopically treated up to 4 days after perforation without sequelae, at least in selected cases [7]. Also in relatively large perforations (3 cm) a clinical success rate of 89% for endoscopic perforation closure with OTSC was reported [8]. Recently, a classification of GI defects was established by Mangiavillano et al. on the basis of the perforation's shape [9]. In this classification two types of perforation were described, the type-1, or round shape, and the type-2, or oval shape. Authors' suggest the use of the ''Twin-Grasper®'', (Ovesco Endoscopy plus aspiration in type-1 perforation and only aspiration in type-2). In our opinion, considering the high rates of technical and clinical success in sealing perforations of the gastrointestinal tract, OTSC placement should be performed to manage perforations occurring during diagnostic or therapeutic endoscopy, even in small endoscopic centers provided that the endoscopists' training is adequate, considering also the shorter hospital stay, if compared to surgery. Is it also important to remember as a technical failure in OTSC placement does not preclude a subsequent surgical intervention.

Supported

No support.

Disclosure of interest

The authors declare that they have no competing interest.

References

[1] Chaudhary A, Aranya RC. Surgery in perforation after endoscopic sphincterotomy: sooner, later or not at all? Ann R Coll Surg Engl 1996;78:206—8.
[2] Bell RC, Van Stiegmann G, Goff J, et al. Decision for surgical management of perforation following endoscopic sphincterotomy. Ann Surg 1991;57:237—40.
[3] Minami S, Gotoda T, Ono H, et al. Complete endoscopic closure of gastric perforation induced by endoscopic resection of early gastric cancer using endoclips can prevent surgery. Gastrointest Endosc 2006;63:596—601.
[4] Abe S, Oda I, Suzuki H, et al. Short- and long-term outcomes of endoscopic submucosal dissection for undifferentiated early gastric cancer. Endoscopy 2013;45:703—7.
[5] Kojima T, Parra-Blanco A, Takahashi H, et al. Outcome of endoscopic mucosal resection for early gastric cancer: review of the Japanese literature. Gastrointest Endosc 1998;48:550—5.
[6] Kobara H, Mori H, Nishiyama N, et al. Over-the-scope clip system: a review of 1517 cases over 9 years. J Gastroenterol Hepatol 2019;34(1):22—30.
[7] Mangiavillano B, Bianchetti M, Eusebi LH, et al. A case of surgical delayed sovranastomotic perforation successfully treated with an over-the-scope clip (with video). Dig Liver Dis 2018;50:91.
[8] Voermans RP, Le Moine O, von Renteln D, et al. Efficacy of endoscopic closure of acute perforations of the gastrointestinal tract. Clin Gastroenterol Hepatol 2012;10:603—8.
[9] Mangiavillano B, Caruso A, Manta R, et al. Over-the-scope clips in the treatment of gastrointestinal tract iatrogenic perforation: a multicenter retrospective study and a classification of gastrointestinal tract perforations. World J Gastrointest Surg 2016;8:315—20.

https://doi.org/10.1016/j.clinre.2019.08.002

Please cite this article in press as: Mangiavillano B, et al. Iatrogenic perforation and endoscopic closure: It's time to replace surgery? Clin Res Hepatol Gastroenterol (2019), https://doi.org/10.1016/j.clinre.2019.08.002

B. Mangiavillano[a,c,*]
F. Auriemma[a]
M. Bianchetti[a]
A. Repici[b,c]
[a] *Gastrointestinal Endoscopy Unit, Humanitas, Mater Domini, Castellanza (VA), Italy*
[b] *Digestive Endoscopy Unit, Istituto Clinico Humanitas Research Hospital, Rozzano (MI), Italy*
[c] *Humanitas University Via Rita Levi Montalcini, 4, 20090 Pieve Emanuele (MI), Italy*

[*] Corresponding author. Gastrointestinal Endoscopy Unit, Humanitas, Mater Domini, via Gerenzano n.2, 21053 Castellanza (VA), Italy.
E-mail address: bennymangiavillano@gmail.com (B. Mangiavillano)

Please cite this article in press as: Mangiavillano B, et al. Iatrogenic perforation and endoscopic closure: It's time to replace surgery? Clin Res Hepatol Gastroenterol (2019), https://doi.org/10.1016/j.clinre.2019.08.002