CORRESPONDENCE

The Endoscopic Treatment of Iatrogenic Gastrointestinal Perforation

by Dr. med. Arthur Schmidt, Prof. Dr. med. Karl-Hermann Fuchs, Prof. Dr. med. Karel Caca, Dr. med. Armin Küllmer, and Prof. Dr. med. Alexander Meining in issue 8/2016

Endoscopic Vacuum Therapy Was Omitted

The authors described in detail their experiences with the over the scope clip (OTSC) (1). Endoscopic clip application was reportedly the most studied procedure. Stent treatment was mentioned in passing; all other approaches were assessed as experimental, with reference to insufficient data or lacking availability. Endoscopic vacuum therapy (EVT) was not explained. We wish to comment on the article with regard to the treatment of esophageal defects.

Intracorporeal EVT is a further development of vacuum therapy, which thus far has been used on the body surface (2). It has been included in the therapeutic recommendations of the European Society of Gastrointestinal Endoscopy (ESGE) (3) and is reflected in the DRG system with specific codes for operations and procedures.

Since 2006 EVT has been used in esophageal defects. The literature documents experiences in more than 160 patients. Esophageal defects of any origin (postoperative anastomosis failure, iatrogenic perforations, and other perforations, including Boerhaave syndrome), localization, size, and possible infections were treated with a success rate of 70–100%. Three retrospective studies at the university hospitals in Kiel, Hanover, and Münster showed a treatment advantage compared with surgery and stent therapy. Our working group achieved a cure rate of 100% (median duration of treatment: five days) in 10 patients with iatrogenic esophageal perforation (4).

In our view, limitations for using OTSC in the esophagus include the need for an unrestricted direct view when applying the clip, the fact that a foreign body remains in the lumen, possible narrowing of the lumen, and involvement of extraluminal structures.

EVT is an innovative therapeutic approach for esophageal defects, which combines the two surgical therapeutic principles of closure and drainage. It can be used at all levels of the esophagus, for all defect sizes, and whether or not infection is present.

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Drs Schorsch and Müller declare that no conflict of interest exists.

In Reply:

Endoscopic vacuum therapy (EVT) is an effective approach to the treatment of chronic leakages, and for esophageal anastomotic failures. However, our review article focused on acute iatrogenic perforation after diagnostic or therapeutic endoscopy (2). In this setting, very few data exist with regard to EVT, as most of the available studies included mostly patients with postoperative leakages (3).

The "treatment advantage" mentioned by our correspondents for EVT compared with stenting has not been satisfactorily confirmed for acute perforation: the three studies are retrospective and included primarily postoperative anastomotic failures. The current position paper of the ESGE mentions EVT in the context of treating acute perforation, but it does not provide any concrete recommendations, and neither does it provide an algorithm (3). Usually relevant paraesophageal fluid accumulation does not occur in the acute setting, especially in patients with smaller defects, and therefore effective closure, rather than drainage, is the primary concern: clips (for smaller defects) and coated stents are two established and widely available procedures. The case series of 10 patients mentioned by Loske indicates great effectiveness of EVT for acute perforations too, but the case number seems too low to recommend the procedure generally as first-line therapy. Larger studies are required in this setting. The remaining foreign body in the case of over the scope clips is clinically not problematic since these are intended as long-term implants, and in case of (rare) complications, such as luminal obstruction, they can usually be removed by using a special instrument for cutting (4).

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