

## Iatrogenic colonic perforation closure with an over-the-scope clip applied with a gastroscope 4 hours after index colonoscopy



Endoscopic treatment of colonic acute iatrogenic perforations (AIPs) recognized during or shortly after the procedure has been recommended as a first-line approach [1–5], even for perforations occurring during diagnostic colonoscopies, which are considered larger than those occurring during therapeutic colonoscopies. However, the approximate time frame has not been defined. Experts recommend the marginal time of 4 hours after the colonoscopy. We report the closure of an AIP with an over-the-scope (OTS) clip, mounted on a gastroscope, 4 hours after the endoscopic view of the defect.

A 71-year-old woman was referred to our unit for treatment of a full-thickness AIP at the sigmoid colon, endoscopically diagnosed 4 hours earlier during a screening colonoscopy. Initially, through-the-scope clips were used by the endoscopist to close the defect. However, the closure was not considered secure and the patient was referred to our hospital. The abdominal computed tomography scan revealed the presence of extraluminal gas without presence of colonic contents. Despite the patient's good general condition, we decided to proceed with a new colonoscopy.

A 1.5 cm defect was identified at the sigmoid colon and it was decided to attempt closure using an OTS clip (► **Fig. 1**). However, advancement of the mounted colonoscope was impossible due to adhesions. It was therefore decided to attempt application of an OTS clip with smaller diameter and mounted on the tip of a gastroscope. The mounted gastroscope was advanced to the perforation site and the clip was applied, closing the defect (► **Fig. 2**, ► **Video 1**). The patient was uneventfully discharged 3 days later.

What does this case add? First, it might be reasonable to attempt the endoscopic closure of a colonic AIP, even in the marginal time frame of 4 hours. Second,



► **Fig. 1** A defect in the sigmoid colon.



► **Fig. 2** The over-the-scope clip in place.



► **Video 1** Iatrogenic colonic perforation closure with an over-the-scope clip applied with a gastroscope.

gastroscope-assisted OTS clip placement could be considered as a rescue treatment for cases with difficulty in accessing the colonic defect.

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### Competing interests

The authors declare that they have no conflict of interest.

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