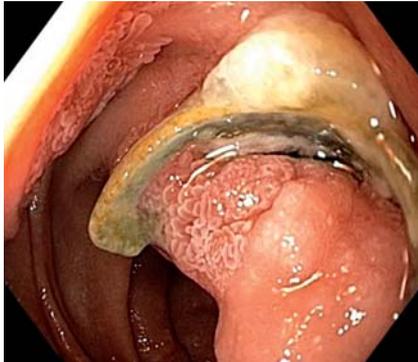
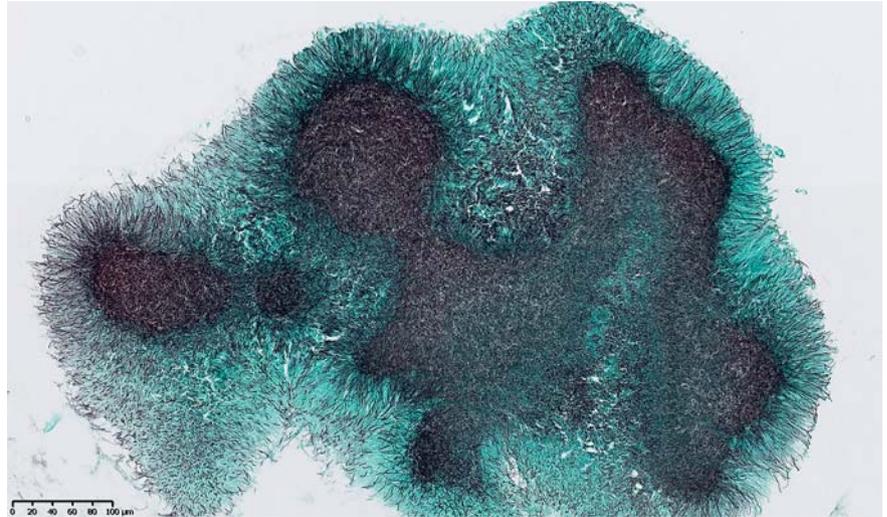


## Actinomycosis associated with a permanently implanted duodenal over-the-scope clip



► **Fig. 1** Endoscopic appearance of duodenal actinomycosis associated with an over-the-scope clip that had been in place for 11 years.

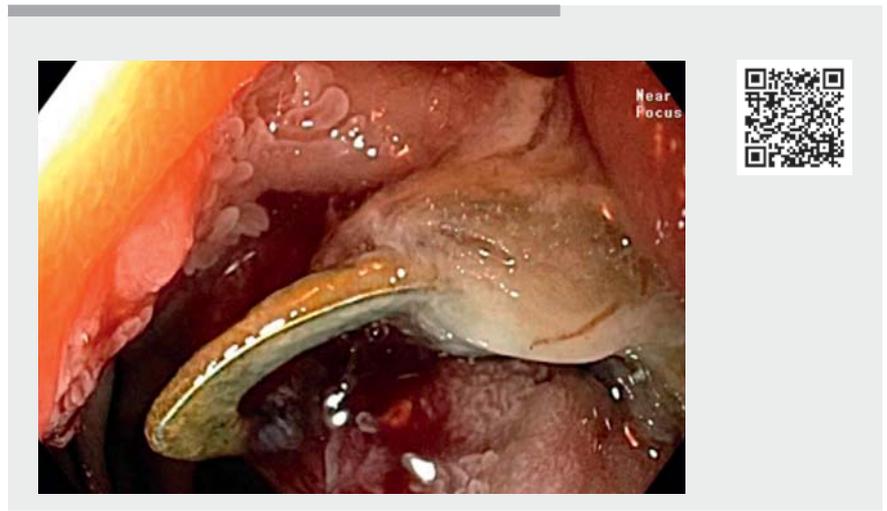


► **Fig. 2** Grocott staining showing the filamentous structures of *Actinomyces*.

The over-the-scope (OTS) clip system is a safe and effective endoscopic therapy for gastrointestinal bleeding, perforation, and leakage [1,2]. A recent review reported an overall complication rate of 1.7% [1]. We report the case of a 76-year-old woman with a complication that arose 11 years after the placement of two OTS clips (Ovesco Endoscopy AG, Tübingen, Germany).

The patient had undergone resection by hybrid endoscopic submucosal dissection of a 25-mm duodenal adenoma 11 years previously. The procedure was technically difficult owing to fibrosis and was ultimately complicated by a micro-perforation, which was managed by the placement of two OTS clips. Histology revealed a tubulovillous adenoma with low grade dysplasia.

Follow-up esophagogastroduodenoscopies showed no signs of recurrence. Biopsy specimens of the scar revealed regenerative mucosa with hyperplastic changes. Both OTS clips stayed in place for 8 years, after which spontaneous dislodgement of one OTS clip occurred. Endoscopic examination then revealed a non-dysplastic mucosal bridge – double lumen appearance of the duodenum – with one clip still correctly placed.



► **Video 1** Diagnosis, treatment and follow-up of actinomycosis associated with a permanently implanted duodenal over-the-scope clip.

Eventually 11 years after placement of the OTS clips, the mucosa surrounding the remaining clip had a villous aspect (► **Fig. 1**); biopsies were taken, which were positive for *Actinomyces* (► **Fig. 2**). A computed tomography scan was performed, which was negative for regional lymphadenopathy and regional spread. Following multidisciplinary discussion, a

penicillin-based treatment was proposed and the OTS clip was successfully extracted. A decision was made not to cut the mucosal bridge, because the patient was asymptomatic. At 6-month follow-up, no signs of recurrence were present (► **Video 1**). Abdominopelvic actinomycosis in immunocompetent people has been described

[3]. In the literature, an association with foreign bodies has been reported, predominantly with intrauterine contraceptive devices [3]. To our knowledge, this is the first published case of actinomycosis occurring in relation to an OTS clip.

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### Competing interests

The authors declare that they have no conflict of interest.

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