Multipurpose use of the Over-the-Scope-Clip system (‘Bear claw’) in the gastrointestinal tract: Swiss experience in a tertiary center

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Aim: To evaluate the outcome of over-the-scope-clip system (OTSC) for endoscopic treatments of various indications in daily clinical practice in Switzerland.

Methods: This prospective, consecutive case series was conducted at a tertiary care hospital from September 2010 to January 2014. Indications for OTSC application were fistulae, anastomotic leakage, perforation, unroofed submucosal lesion for biopsy, refractory bleeding, and stent fixation in the gastrointestinal (GI) tract. Primary technical success was defined as the adequate deployment of the OTSC on the target lesion. Clinical success was defined as resolution of the problem; for instance, no requirement for surgery or further endoscopic intervention. In cases of recurrence, retreatment of a lesion with a second intervention was possible. Complications were classified into those related to sedation, endoscopy, or deployment of the clip.

Results: A total of 28 OTSC system applications were carried out in 21 patients (median age 64 years [range 42-85], 33% females). The main indications were fistulae (52%), mostly after percutaneous endoscopic gastrostomy tube removal, and anastomotic leakage after GI surgery (29%). Further indications were unroofed submucosal lesions after biopsy, upper gastrointestinal bleeding, or esophageal stent fixation. The OTSC treatments were applied either in the upper (48%) or lower (52%) GI tract. The mean lesion size was 8 mm (range: 2-20 mm). Primary technical success and clinical success rates were 85% and 67%, respectively. In 53% of cases, the suction method was used without accessories (e.g., twin grasper or tissue anchor). No endoscopy-related or OTSC-related complications were observed.

Conclusions: OTSC is a useful tool for endoscopic closure of various GI lesions, including fistulae and leakages. Future randomized prospective multicenter trials are warranted.

**keywords**
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