





BSGIE  Hôpital Erasme  ULB 

## Tips and tricks : how to place an Over The Scope Clip

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## OVER THE SCOPE CLIP





OTSC<sup>®</sup>  
System



Bear claw



Padlock Clip<sup>®</sup>

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## INDICATIONS

- Defect closure (Series 15 ; Case report 50)
  - Iatrogenic perforation (diagn / therap)
  - Spontaneous perforation (e.a. Boerhave)
  - Fistula and leak
- Bleeding management
- Other
  - Full-thickness resection
  - Bariatric
  - Stent migration prevention



Baron GIE 2012  
Kirschniak Surg Endos 2011  
Jayaraman Diagn Ther Endo 2013  
.....

Manta Surg Endos 2013

Sarker Endoscopy 2014

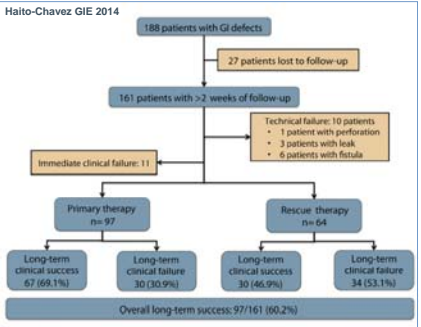
Heylen Obes Surg 2011

.....

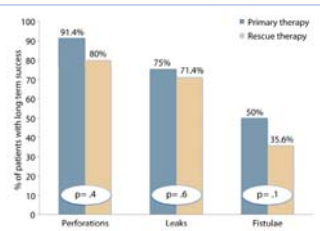
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## DEFECT CLOSURE

Haito-Chavez GIE 2014



**Figure 1.** Flow chart of 188 patients with GI defects who underwent over-the-scope clip placement.



**Figure 3.** Comparison of long-term clinical success based on type of defect and type of approach. Over-the-scope clip placement was more effective when applied as primary therapy across all 3 defect types, although the difference was not statistically significant.

Haito-Chavez GIE 2014 (188 pat)  
Hager J GI Surg 2012 (17 pat)  
Baron GIE 2012 (38 pat)  
Voermans Clin Gastro Hepat 2012 (33 pat)  
\* Mercky Digest Endo 2014 (30 pat)

## OTSC: IATROGENIC PERFORATION

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### Diagnosis and management of iatrogenic endoscopic perforations: European Society of Gastrointestinal Endoscopy (ESGE) Position Statement



- ✓ Immediate / early recognition (or absence of free fluid or contrast on CT)
- ✓ Carbon dioxide
- ✓ Endoscopic closure to be considered depending on endoscopist expertise available
- ✓ OTSC is a valid option for gastric perforation larger than 10 mm and large perforation of colon

Paspatis ESGE Endoscopy 2014

## OVER THE SCOPE CLIP

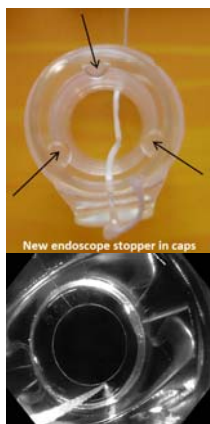
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Endoscope size	Ø 8.5 - 11 mm	Ø 10.5 - 12 mm	Ø 11.5 - 14 mm
Depth of cap			
3 mm	●	●	●
4 mm	●	●	●

## OTSC PLACEMENT

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- Large working channel endoscope
  - UGI : therapeutic (ø 3,7 mm)
  - Colon : standard colonoscope (ø 3,7 mm)
- Push the cap up to the stoppers
  - Particularly with 6mm cap
  - Eventually use tape
- Align the thread with the working channel
- Be care with the introduction of the instrument



## OTSC DEPLOYMENT

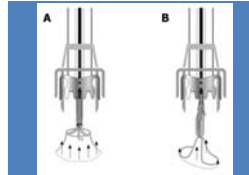
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- Targeting the wounded tissue
  - cap = vacuum device (with a guide-wire or grasper to centre the leak)

## OTSC DEPLOYMENT

### Targeting the wounded tissue

- cap = vacuum device (with a guide-wire or grasper to centre the leak)
- Apply a slight traction to bring the tissue and the instrument into the cap
- Then use aspiration



### Releasing the clip

- Block the instrument to the hand piece of the endoscope
- Maintain suction
- Quick and firm 1/4 to 1/2 hand wheel rotation to release the clip

## Take your time !

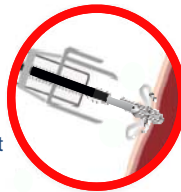


## BAD SCENARIO ?

### Clip released on the instrument jaws

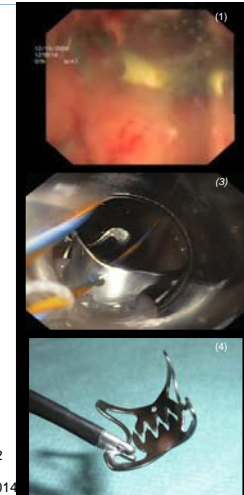
#### What can you do ?

- Pull gently the instrument out of the clip under direct vision with cap against the clip
- Cut the shaft outside the scope, push the shaft in stomach/bowel and
  - wait until the clip and instrument are released ...
  - ... Surgery
  - try to pull the clip out the tissue with another instrument



## REMOVING A CLIP

- Use cold water (4° C) - Nitinol stiffness varies with temperature (2 channels endoscope ?) <sup>(1)</sup>
- *Submucosal injection and snare grasping* <sup>(2)</sup>
- *Guidewire insertion into oval hole, looping and traction* <sup>(3)</sup>
- YAG laser / (Argon)
- Ovesco remOVE: nitinol clip cutter using bipolar energy (Availability to be expected end of 2014) <sup>(4)</sup>



1. Arezzo, GIE 2013  
2. Mönkemüller GIE 2012  
3. Neumann GIE 2012  
4. Schmidt Endoscopy 2014

## Daily Challenges in Digestive Endoscopy for Endoscopists and Endoscopy Nurses

BSGIE Annual Meeting - 18/09/2014- Mechelen

TIPS AND TRICKS HOW TO ... place an “over-the-scope-clip” (OTSC)?  
Pierre Eisendrath, ULB Erasme Brussels

### CONCLUSION



- OTSC is recognised as a valid option for closure of acute perforation or defect of digestive wall
- OTSC may be used for other indication but no randomised study
- Placement : high technical success but follow basic rules to avoid complication and bad clip placement

33<sup>rd</sup> GEEW  
Gastroenterology and Endotherapy European Workshop  
BRUSSELS - BELGIUM  
June 15 – 17, 2015  
[www.live-endoscopy.com](http://www.live-endoscopy.com)

The image shows a blue-tinted photograph of medical professionals in white coats performing a procedure. They are holding a long, thin tube, likely an endoscope, and a white clip. The background is a light blue grid pattern.