

# **Over the endoscope clipping system for GIT fistulae**

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# Disclosures

- None

# Introduction

- The over the scope clip has been commercially available in Europe since 2008.



# Introduction

- Nitinol clip
- Similar delivery device system to variceal bander



# Indications

- Endoscopic control of hemorrhage
- Endoscopic closure of acute perforation
- Endoscopic closure of fistulae or anastomotic leak

# International experience



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Help Desk: <http://www.wjgnet.com/esps/helpdesk.aspx>  
DOI: 10.3748/wjg.v22.i5.1844

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## **One hundred and one over-the-scope-clip applications for severe gastrointestinal bleeding, leaks and fistulas**

Edris Wedi, Susana Gonzalez, Detlev Menke, Elena Kruse, Kai Matthes, Juergen Hochberger

**Table 1 Overview on patient characteristics, indications and overall success rates**

Patients, <i>n</i>	84
Sex	50 males
	34 females
Age (yr), median	71 (2-98)
Clip type	
12/6T	77
14/6T	24
OTSCs ( <i>n</i> total)	101
Indication for OTSC placement	
Upper GI bleeding	41
Lower GI bleeding	3
Gastrointestinal perforation	7
Fistula	3
Bleeding prevention	12
Perforation prevention	18
Technical success	78/84 (92.85%)
Clinical success	75/84 (89.28%)

# Closure of gastrointestinal defects with Ovesco clip: long-term results and clinical implications

**Gianfranco Donatelli, Fabrizio Cereatti, Parag Dhumane, Bertrand Marie Vergeau, Thierry Tuszynski, Christian Marie, Jean-Loup Dumont and Bruno Meduri**

*Ther Adv Gastroenterol*

2016, Vol. 9[5] 713–721

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**Table 1.** Study population.

	Patients (n)	Ratio female (F)/male (M)	Median age (years)	Technical success rate	Clinical success rate
Acute setting group	15	12F/3M	71.5	100%	100%
Chronic setting group	30	23F/7M	46.5	50%	36.6%
Total	45	35F/10M	54.9	75%	58%

**Table 3.** Features of chronic setting group.

Patients (n)	30	
	Upper GI: 29	Lower GI: 1
Location	2 partial gastrectomy (duodenal stump) 25 bariatric surgery (22 SG and 3 RYGB) 1 remnant fistula after PEG removal 1 bilio-pancreatic surgery (duodenum)	1 low RAR leak
GI, gastrointestinal; PEG, percutaneous endoscopic gastrostomy; RAR, rectal anterior resection; RYGB, roux en y gastric bypass; SG, sleeve gastrectomy.		





## Immediate technical and delayed clinical outcome of fistula closure using an over-the-scope clip device

Ryan Law · Louis M. Wong Kee Song ·  
Shayan Irani · Todd H. Baron

47 patients 60 procedures

Small bowel 18

Stomach 16

Colorectum 10

Esophagus 3

Technical success 42/47 89%

Delayed clinical success 25/47 53%

# **The Groote Schuur Experience**

- Retrospective review of prospectively maintained database
- Jan 2014- June 2016

# BREAKDOWN OF CASES

Indication	n=13	Failure
Post-polypectomy colonic bleeding	5	0
Bleeding gastric ulcer	2	0
Acute perforation	1	0
Persistent PEG fistula	1	0
Colorectal fistula	2	2
Recto-vaginal fistula	1	1
Oesophago-cutaneous fistula	1	1

# OUTCOMES

Technical success (%)	90
Clinical success (%)	66
Mortality	0
Complications	0
Follow-up (Months (Range))	0-12
Fistulae technical success	83%
Fistulae clinical success	16%

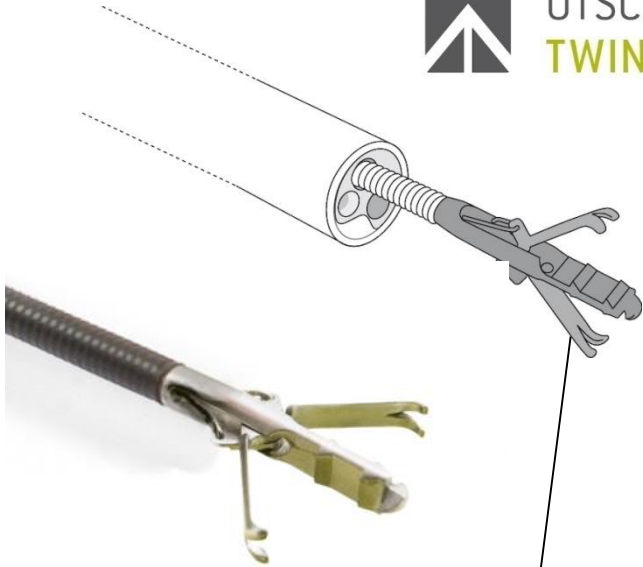
# Closure of enterocutaneous fistula

- Success rate in the literature probably better than reality
- Complications minimal
- Technical aspects
- Clinical aspects

# Technical aspects



OTSC®  
TWIN GRASPER®



OTSC Twin grasper:

Supports organ wall  
closure  
Two separate jaws  
Approximates wound  
margins before clip  
release



OTSC®  
ANCHOR

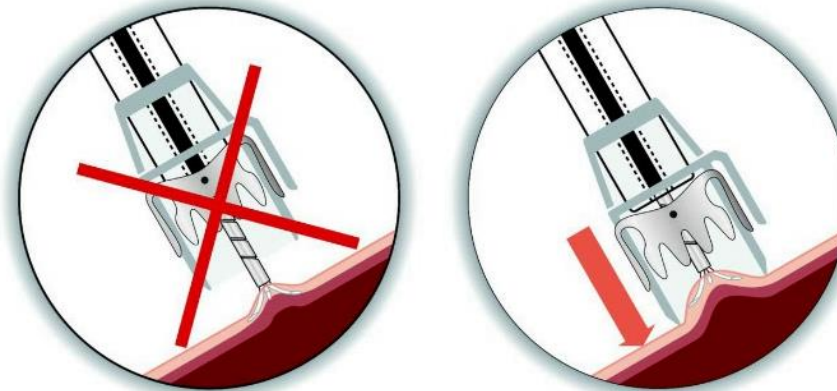
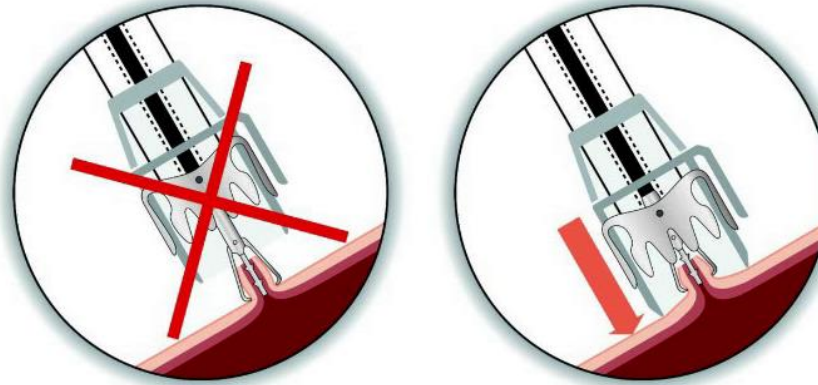


OTSC Anchor:

Supports treatment of  
hemorrhage  
NiTi anchor  
Anchors into tissue  
before clip release

# Technical aspects


## Use of an instrument in combination with the OTSC System




- The instrument must be completely retracted into the cap (controlled by endoscopic view)
- The instrument must be fixed in the retracted position while clipping
- The cap must be mounted to the stopper in the cap to avoid sliding forward whilst clipping

# Technical aspects

**OTSC® a:**  blunt teeth, primarily compression effect

**OTSC® t:**  teeth with small spikes, compression and anchoring effect

**OTSC® gc:**  elongated teeth with spikes,  
application: closure of gastric wall  
*gc: gastric closure*



**OTSC® cap: Three sizes and two cap space depths – compatibility to endoscopes**

Endoscope size 		Ø 8.5 – 11 mm	Ø 10.5 – 12 mm	Ø 11.5 – 14 mm
Depth of cap 	3 mm	 	 	 
	6 mm	 	  	 

**NB: The size of the scope, not the lesion defines the size of the clip!!**



# Clinical aspects

## SNAPP

- **S**epsis control
- **N**utrition
- **A**natomy
- **P**rotection of skin
- **P**rocedure plan

# Clinical aspects

## FRIENDS

- Foreign body
- Radiation
- Infection
- Epithelialization
- Neoplasia
- Distal obstruction & active disease
- Steroids & short tract

# Appropriate use

- Mature tract
  - Long
  - thin
- Small defect
- No abscess
- Well patient
- Role in early anastomotic leak – Controversial
- Possibly better in the upper GI
- Brushing of tract or APC ablation??



# Removing OTSC



- Cutter
- Cold water technique
- Guide wire

**Fig. 1** The DC Clip Cutter (Ovesco Endoscopy, Tübingen, Germany). A bipolar grasping instrument fits through a 3.2-mm working channel. By application of a short direct current impulse, the nitinol of the over-the-scope clip is heated up and cut effectively.

# Anal Fistula

Tech Coloproctol (2015) 19:241–246

DOI 10.1007/s10151-015-1284-7

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ORIGINAL ARTICLE

## **The OTSC<sup>®</sup> proctology clip system for the closure of refractory anal fistulas**

**R. Mennigen · M. Laukötter · N. Senninger ·  
E. Rijcken**

Clinical success 7/10

Follow up Median 72 days range 31-109

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ORIGINAL ARTICLE

## **Easy clip to treat anal fistula tracts: a word of caution**

**M. Gautier • P. Godeberge • R. Ganansia • G. Bozio •  
B. Godart • M.A. Bigard • M. Barthet • L. Siproudhis • For  
the Groupe de Recherche en Proctologie SNFCP France**

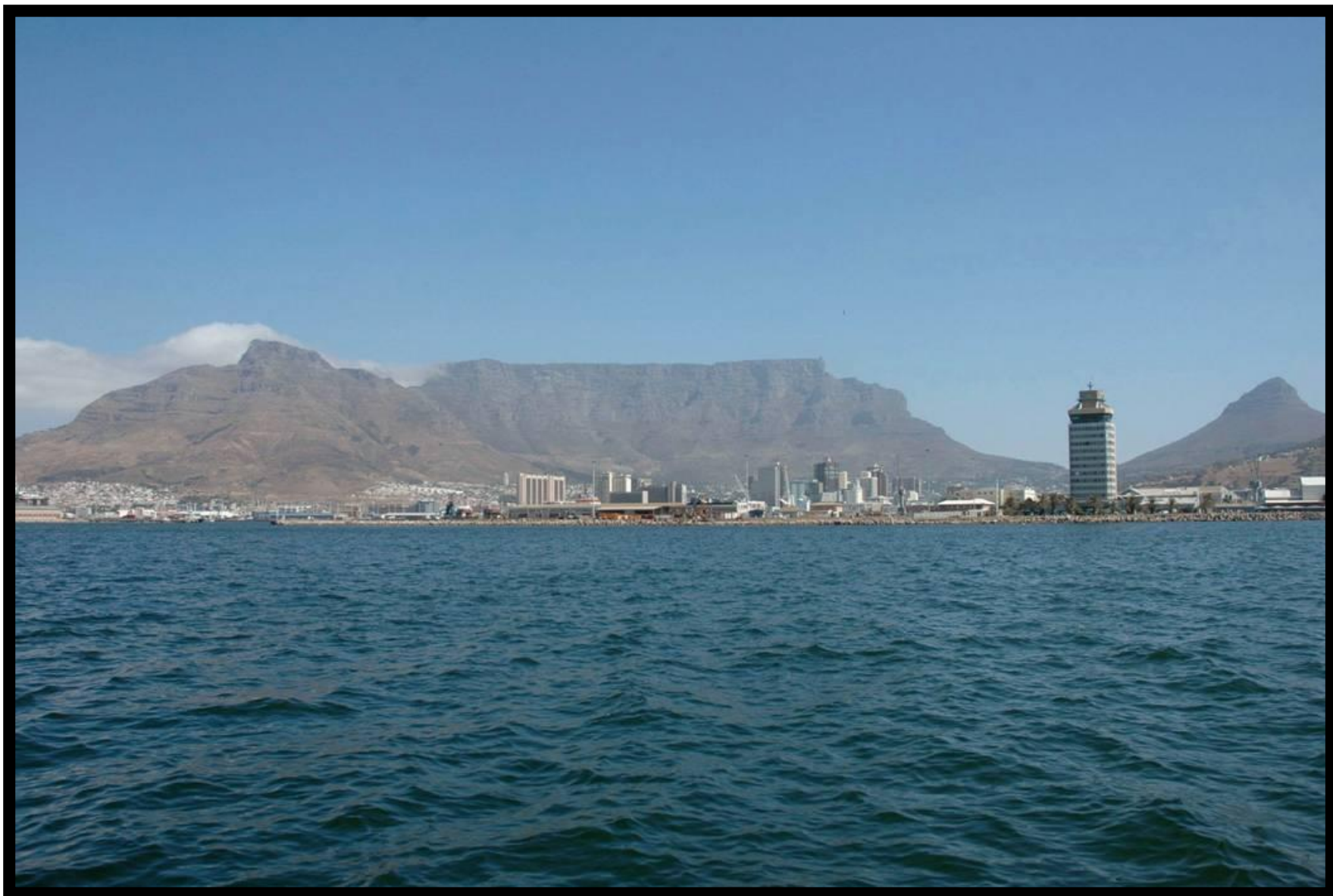
17 patients

2 clinical success

10 patients required drainage procedures









# Conclusion

- Bleeding: excellent
- Acute perforation: good
- EC Fistulae: worth a go in selected cases
- Peri-anal fistulae: watch this space

# Questions

