



**Linköpings Endoskopi Dagar**  
25-26 april 2023

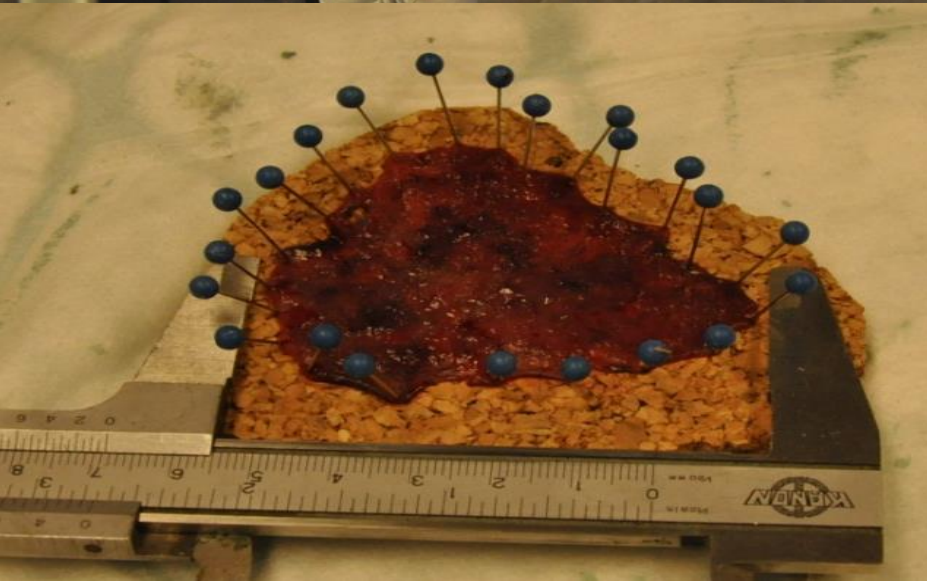
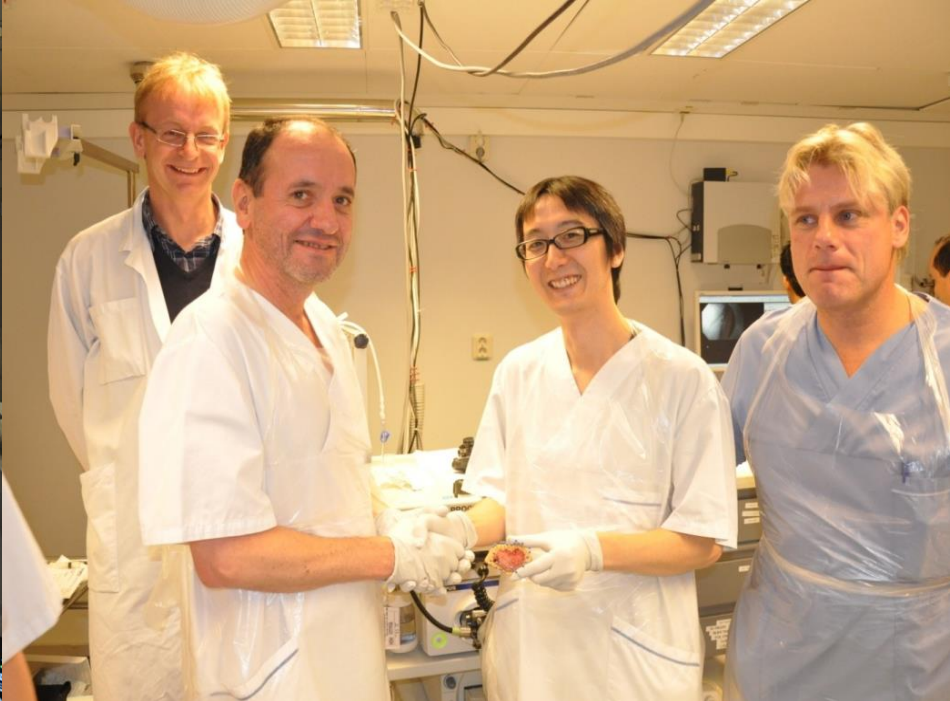
# Complicated Polypectomy

**The Jikei University School of Medicine**

**Department of Endoscopy, Tokyo Japan**

Tomohiko Richard Ohya

**Linköpings Endoskopi Dagar**



Ersta Hospital  
December 3<sup>rd</sup>

2010

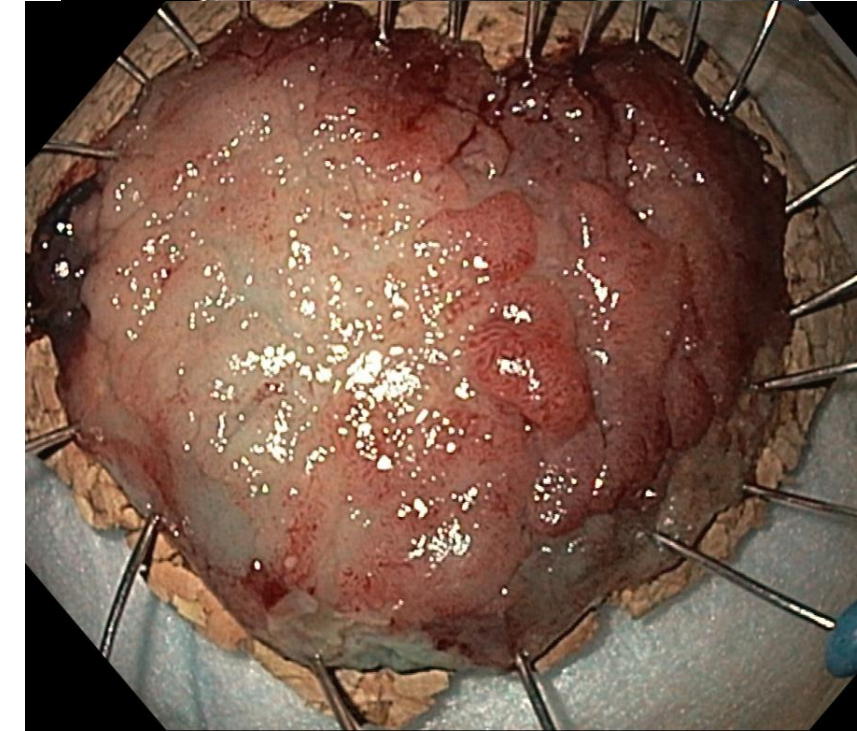
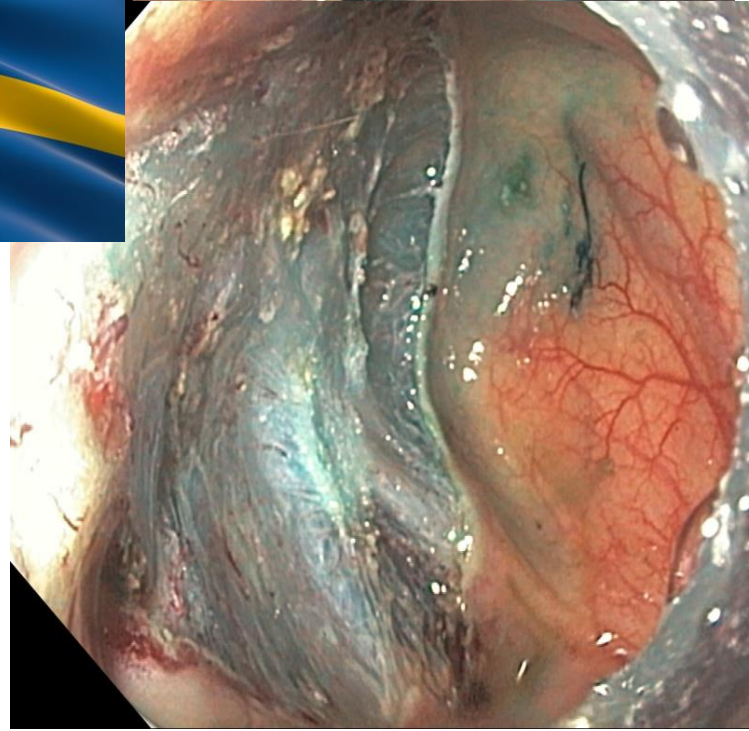
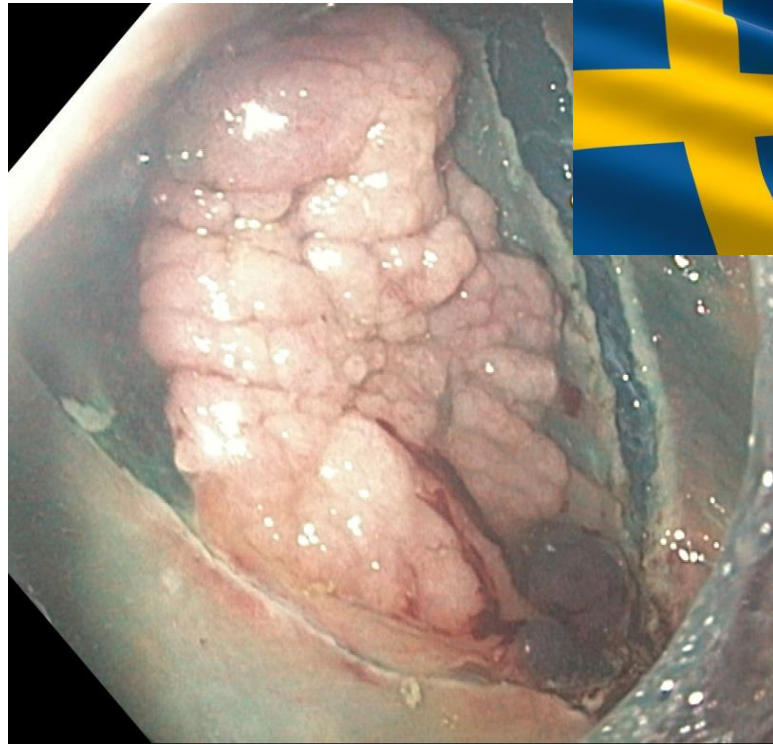
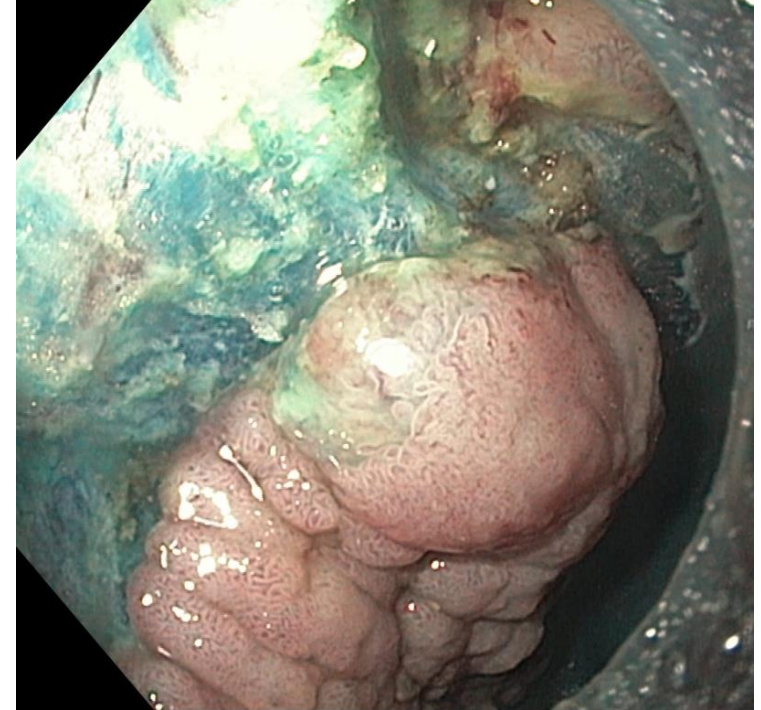
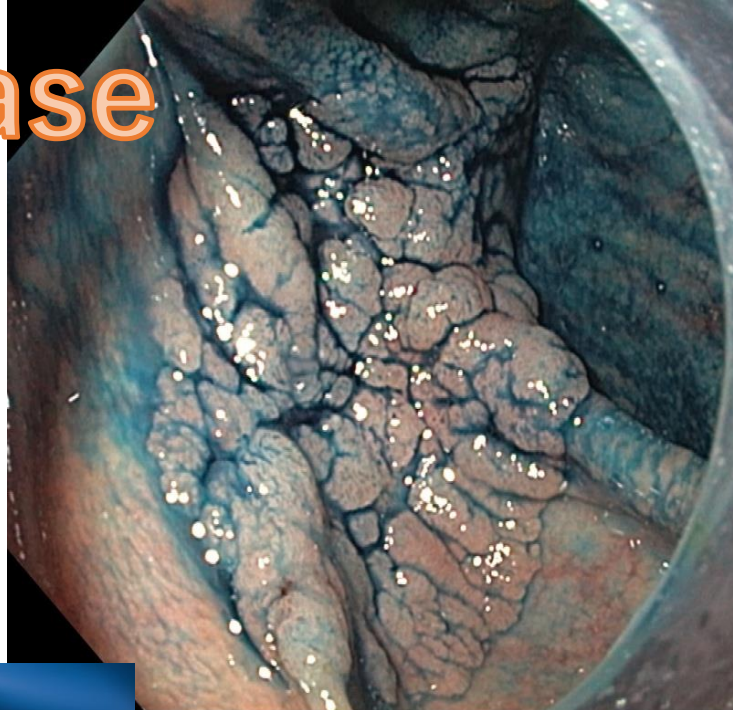


My first ESD case in Sweden

# My 3rd ESD case in Sweden

Cecum 55mm, II a, LST-G  
High grade tubular adenoma  
Resection time 50 min

Dec, 1<sup>st</sup>, 2011





DANDERYDS SJUKHUS

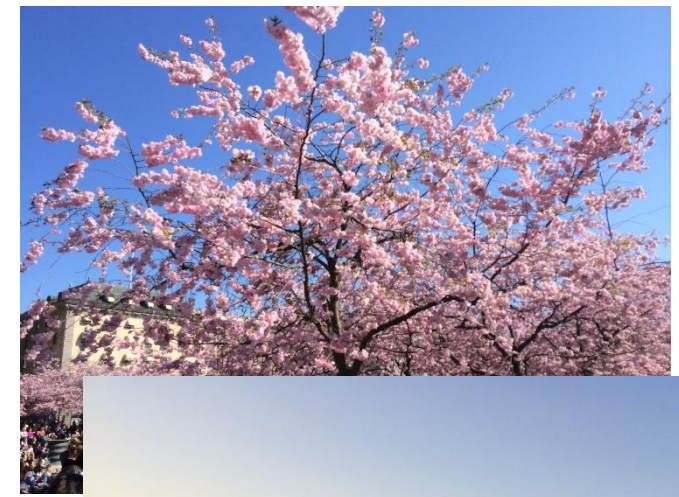


Karolinska  
Institutet

2014-2016

Department of clinical sciences Karolinska Institute,  
Department of surgery and urology, Danderyd Hospital





# Is there a structured training program for ESD in Japan?

- Guidelines for indication
- Minimal prerequisites before starting ESD
  - acquiring enough basic knowledge about ESD
  - knowing the indication
  - basic knowledge of devices  
(ex. electrocautery generator, knives, endoscopes, etc)
  - management of complications

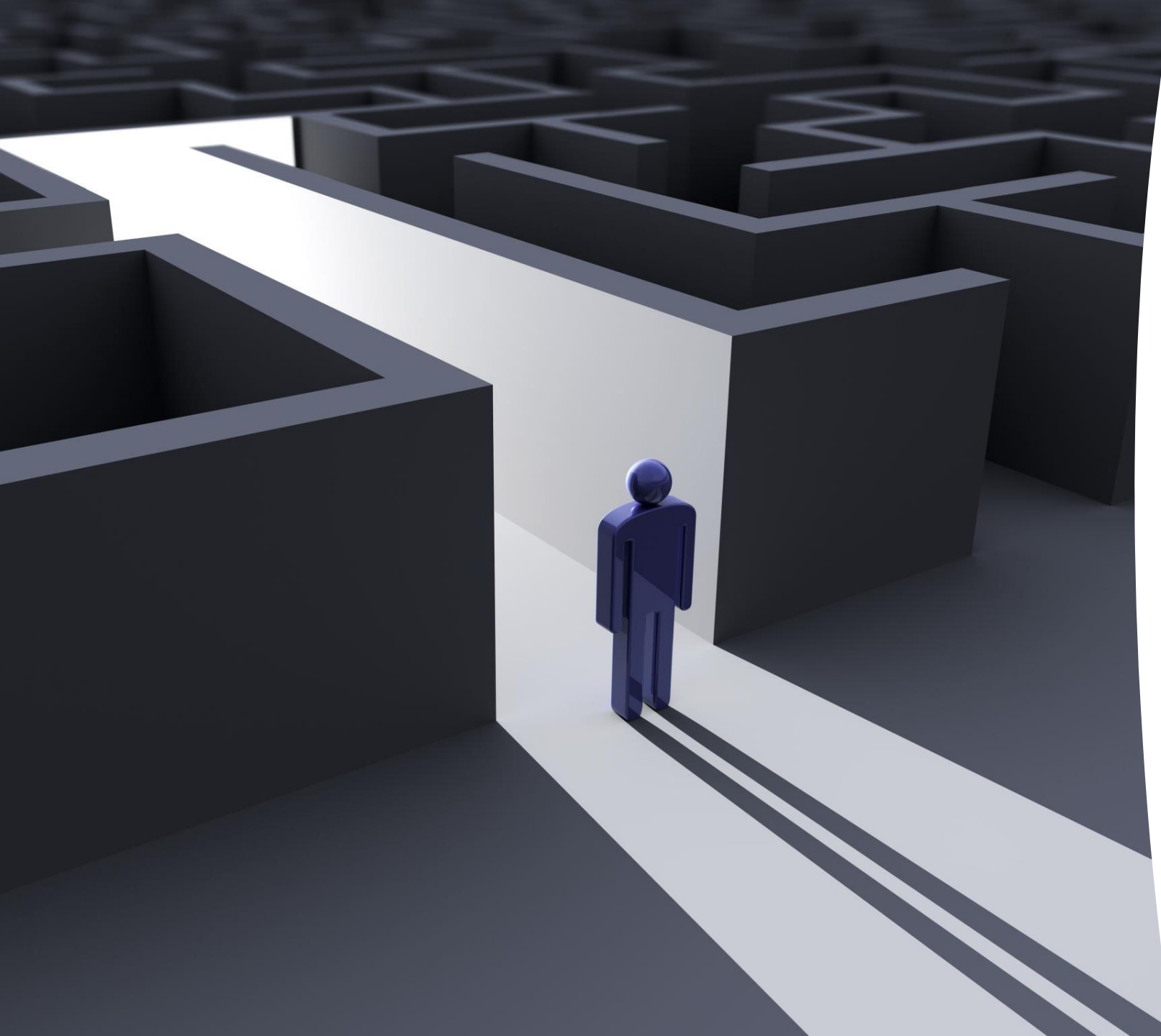
NO!!

Dependent on Institution you are trained

# Similarities with Laparoscopic surgery and Endoscopic therapy

- ◆ Optimizing your surgical working space
- ◆ Maintain full control over all therapeutic instruments
- ◆ Basic knowledge of each instrument
- ◆ Interpret the correct plane to dissect
- ◆ Sufficient bleeding control
- ◆ Interpretation of 3D from a 2D image





# Obstacles for learning ESD

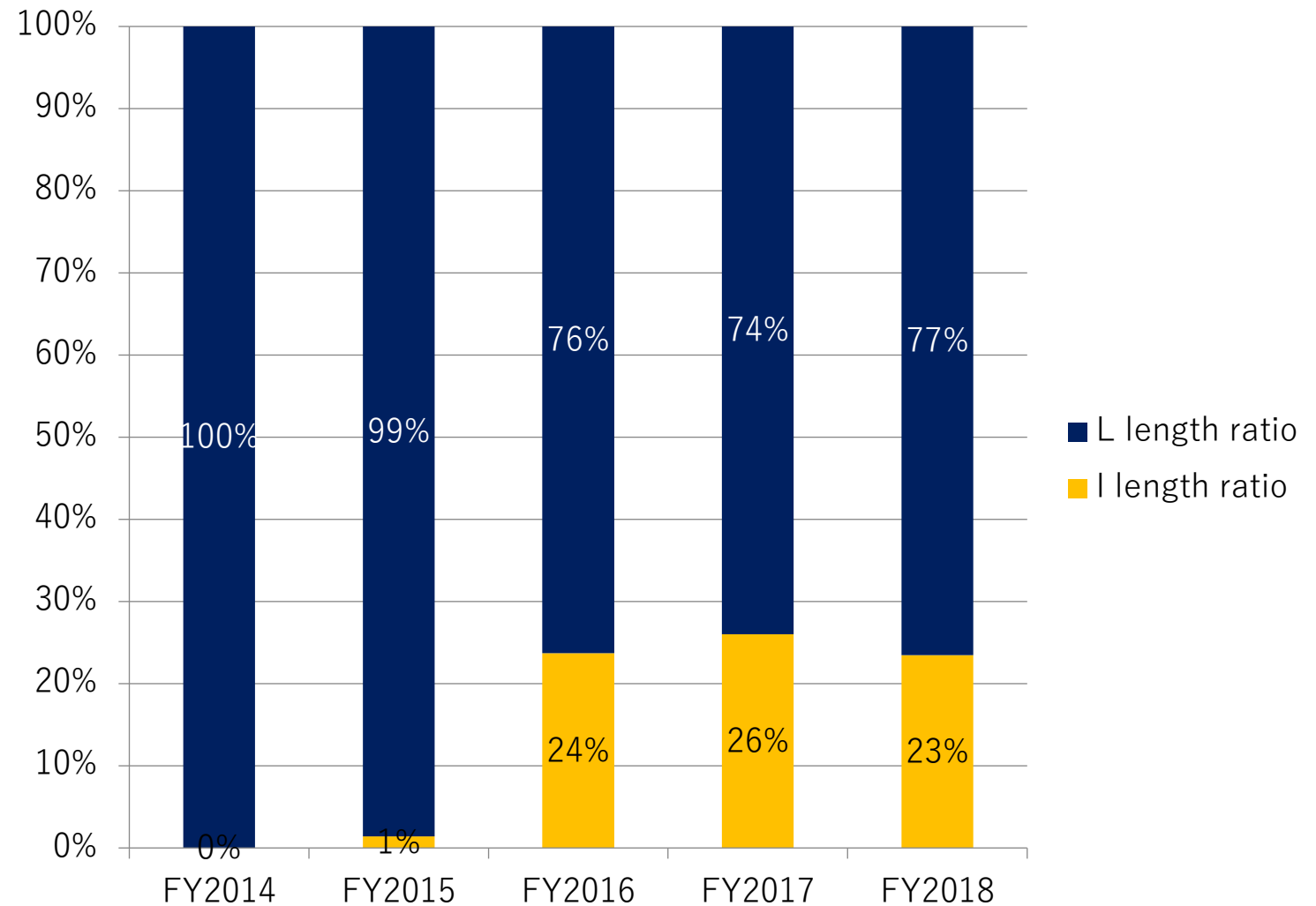


# ESD in the Past!

- Did not have proper knowledge!!
- Did not have proper equipment(Endoscope, Knife, injection needle, injection solution, etc)
- Too difficult to learn by yourself
- Did not have basic endoscopic technique(Colonoscopy)
- Takes hours for one procedure
- Did not have a good countertraction strategy and device.

# Long Scope vs Intermediate Scope

## Colonoscope



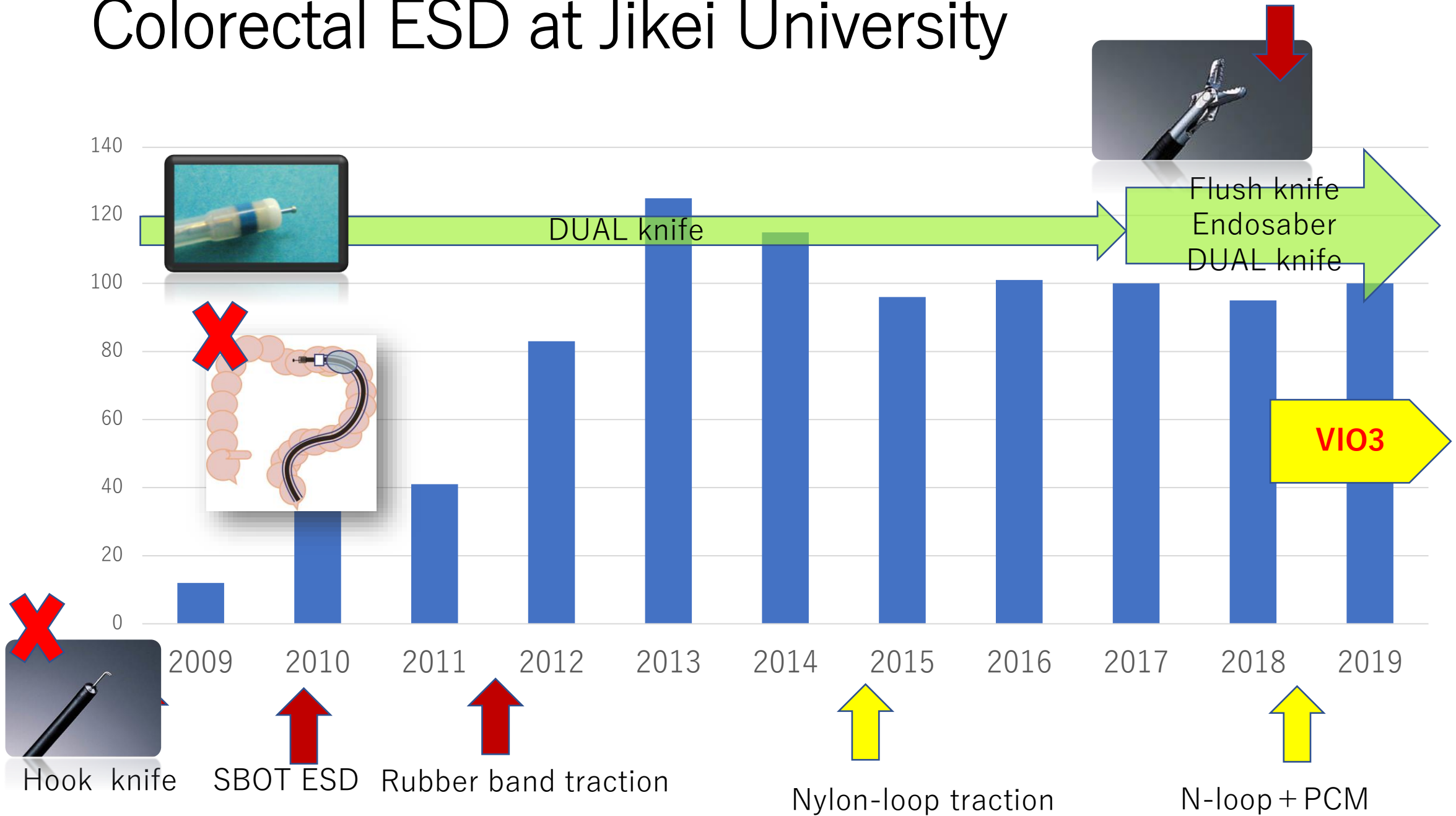
# Simplification is the key

- Don't make the procedure more complicated than it already is.
- Simple strategy
- Not too many instruments
- Dissection plane recognition
- Basic endoscopic technique

Three basic skills you definitely need to keep on improving no matter how confident or skilled you think you are.

- Hemostasis skills
- 3D image recognition of the muscular plane and the submucosal plane(,,,,,noticing the correct dissection plane)
- Noticing how to keep your surgical working field in the best condition(This comes back to the real basics of colonoscopy technique and utilizing countertraction)

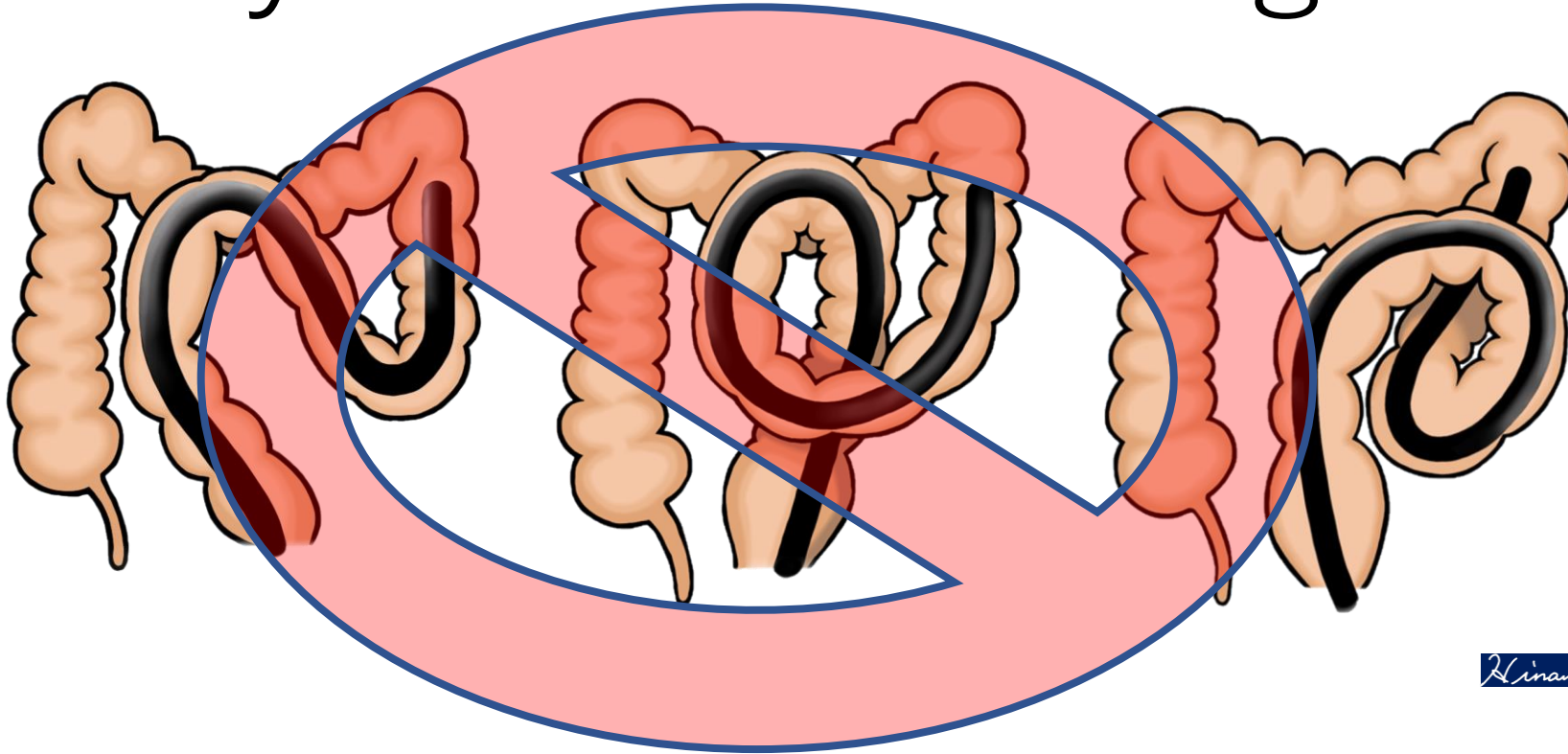
# Colorectal ESD at Jikei University



# Before you start an ESD Procedure

- ① Do you have a good access to the lesion
- ② Are you going to use any countertraction device or go for the pocket creation method
- ③ What's your back up plan

# Do you have a straight scope?

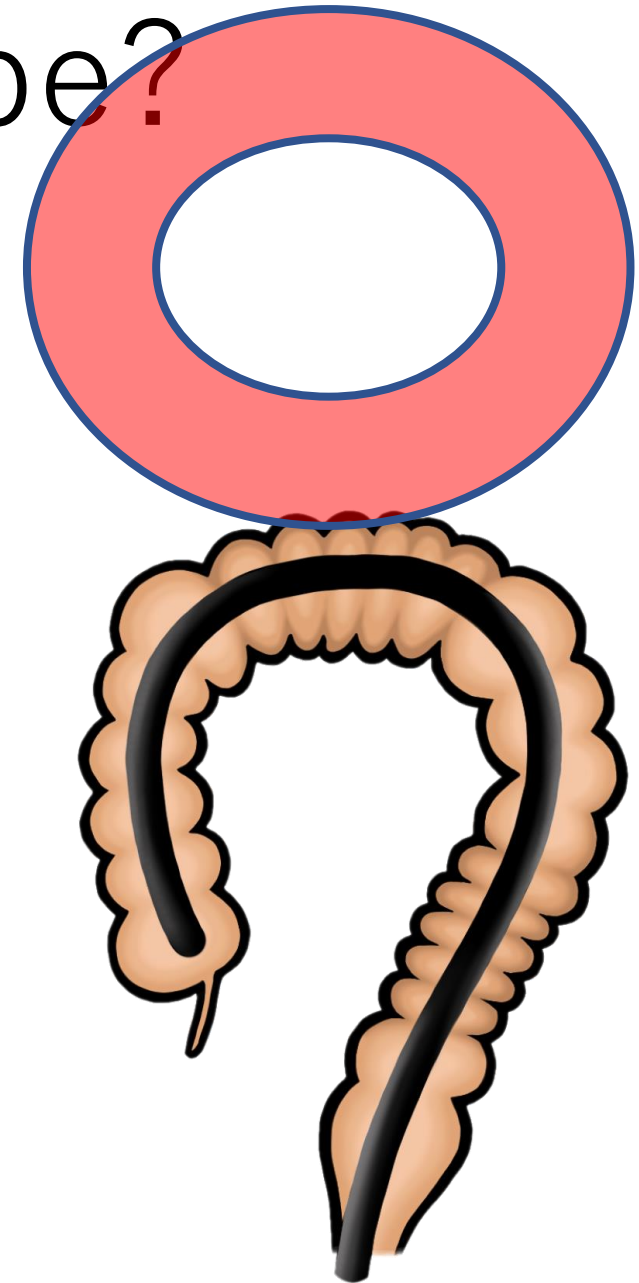


*Kinanata*

Don't even try to go for a procedure unless you have full control over the mobile colon (Transverse and Sigmoid)

=

If you have poor access, the possibility of your procedural success rate is very low.



*Kinanata*

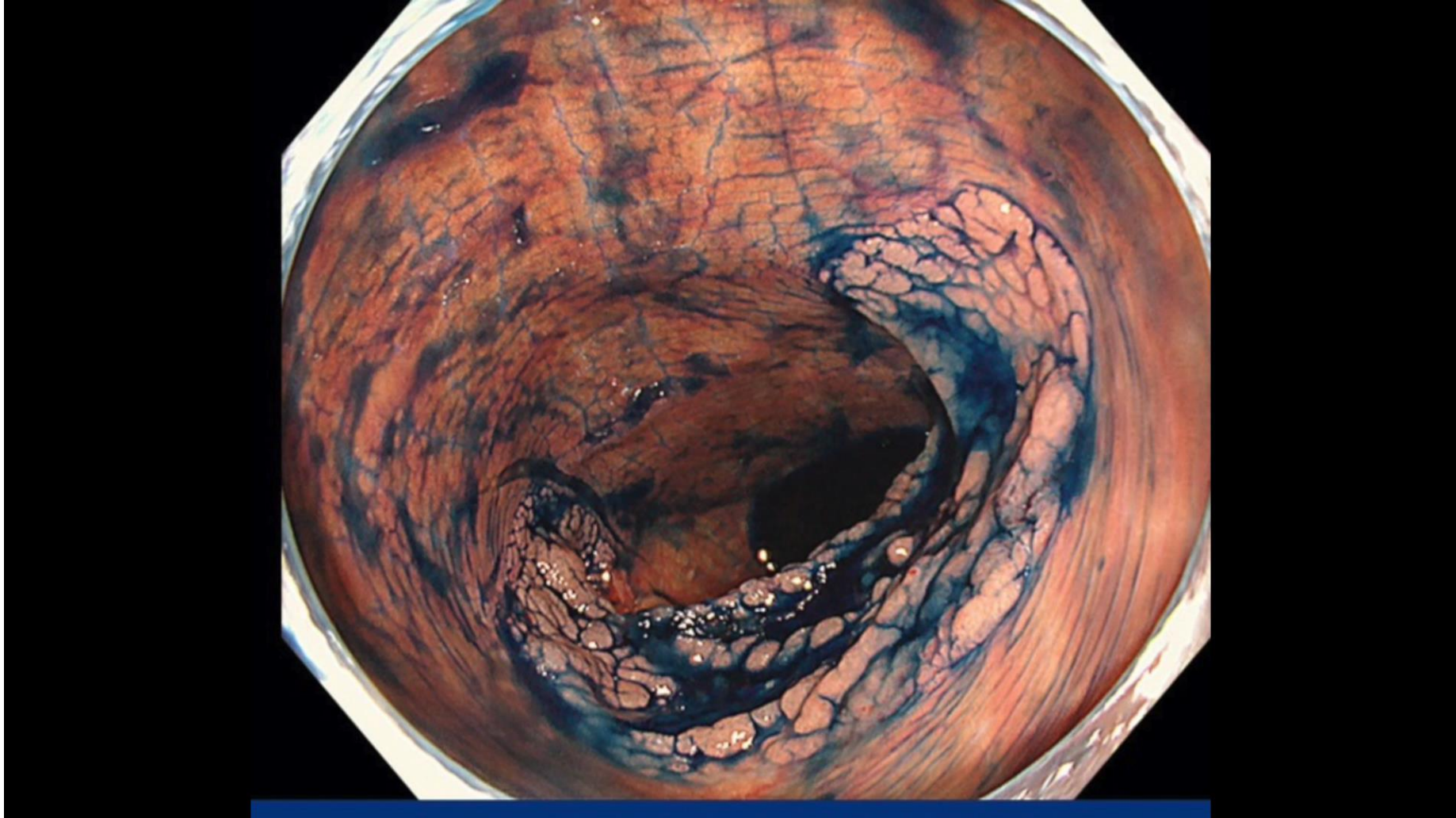
# When you start!!

- ① Find the most optimal position for scope stabilization
- ② Take care of the most difficult edges in the beginning
- ③ If you can easily create a pocket, go for it
- ④ If difficult, take care of the oral edges or even circumferential dissection, and then place countertraction device in the best position
- ⑤ Utilize gravity when you encounter trouble



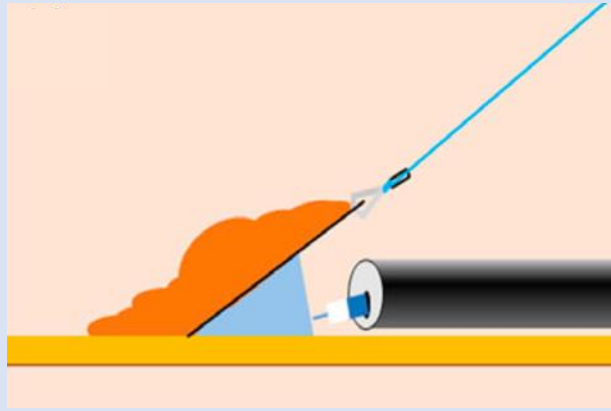


Poor access lesion PCM+MLTD traction



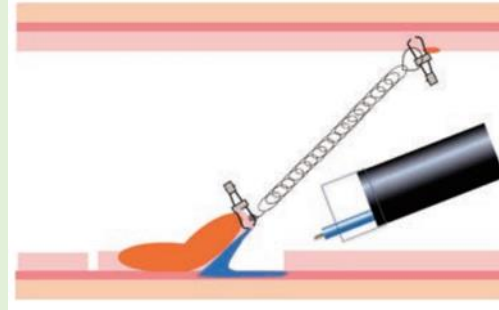
# The effectiveness of countertraction in ESD

## Clip and thread technique

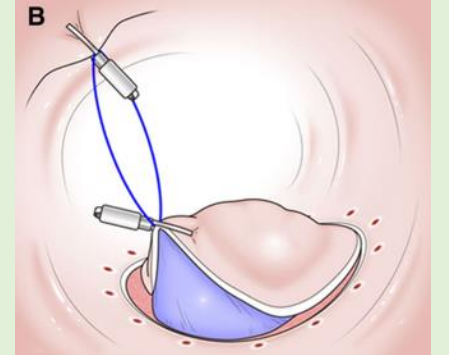


Yamasaki Y, et al. Dig Endosc 2018.

## Intraluminal countertraction technique



Sakamoto et al. Gastroenterol Endosc 2017.



Mori H, et al. Surg Endosc 2017.

Eso: Yoshida M, et al. Gastrointest Endosc 2020.

Sto: Nagata M, et al. Gastrointest Endosc 2020. Colon: Mori H, et al. Surg Endosc 2017.

44.5 minutes vs. 60.5 minutes  
P < 0.001

29.1 minutes vs. 52.6 minutes  
P = 0.005

130.1 minutes vs. 80.0 minutes  
P = 0.001

Shizuoka, Tokyo, Osaka, Kanagawa, Hokkaido, Japan

Fujisawa-shi, Kanagawa, Japan

Sto: Yoshida M, et al. Gastrointest Endosc 2018.

Colon: Yamasaki Y, et al. DEN 2018.

Meta : Ying-Fong Su, et al. Endoscopy 2020.

Greater Cur lesion  
104.1 minutes vs. 57.2 minutes  
P = 0.01

40 minutes vs. 70 minutes  
P < 0.0001

Effect size (Procedure time)  
-16.02 (95%CI -22.71 to -9.33)



MD,<sup>12</sup>  
FRCP,<sup>3</sup>

Effi  
sub  
A p  
Yasu  
Mino  
Noboru Hanaoka, Koji Higashimoto, Ryu Ishihara, Hiroyuki Okada and Hiroyasu Iishi  
<sup>1</sup>Department of Gastrointestinal Oncology, Osaka International Cancer Institute, Osaka, <sup>2</sup>Department of Gastroenterology, Okayama University Hospital, Okayama, and <sup>3</sup>Department of Gastroenterology, Itami City Hospital, Itami, Japan

Systematic review

Efficacy  
dissect

counter  
section

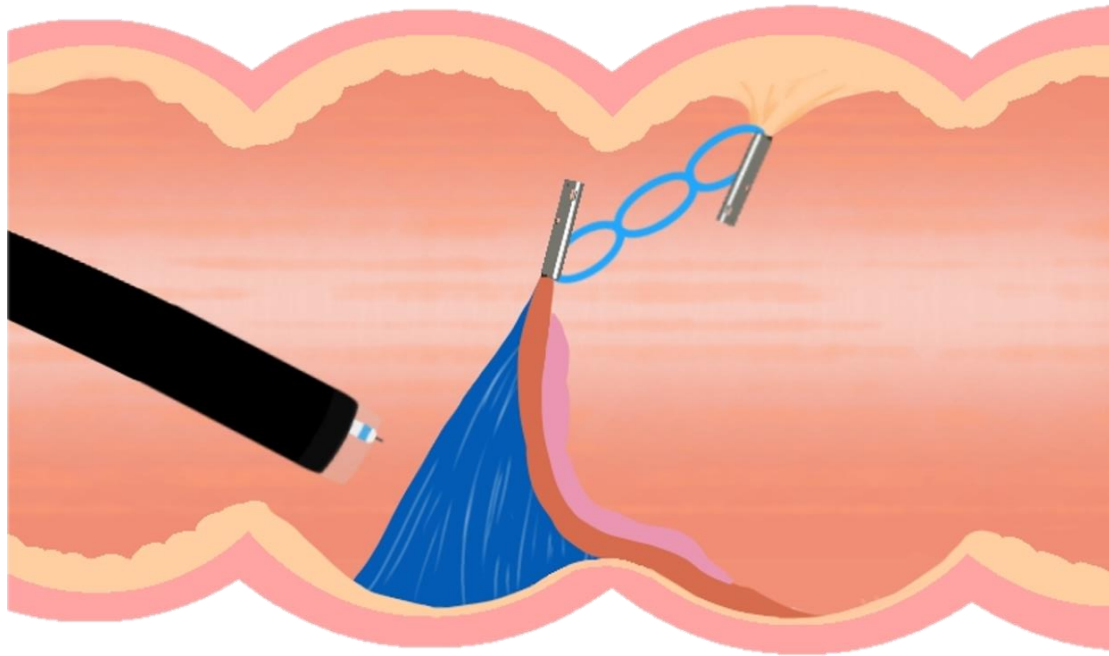
ucosal  
ls

# Countertraction strategy

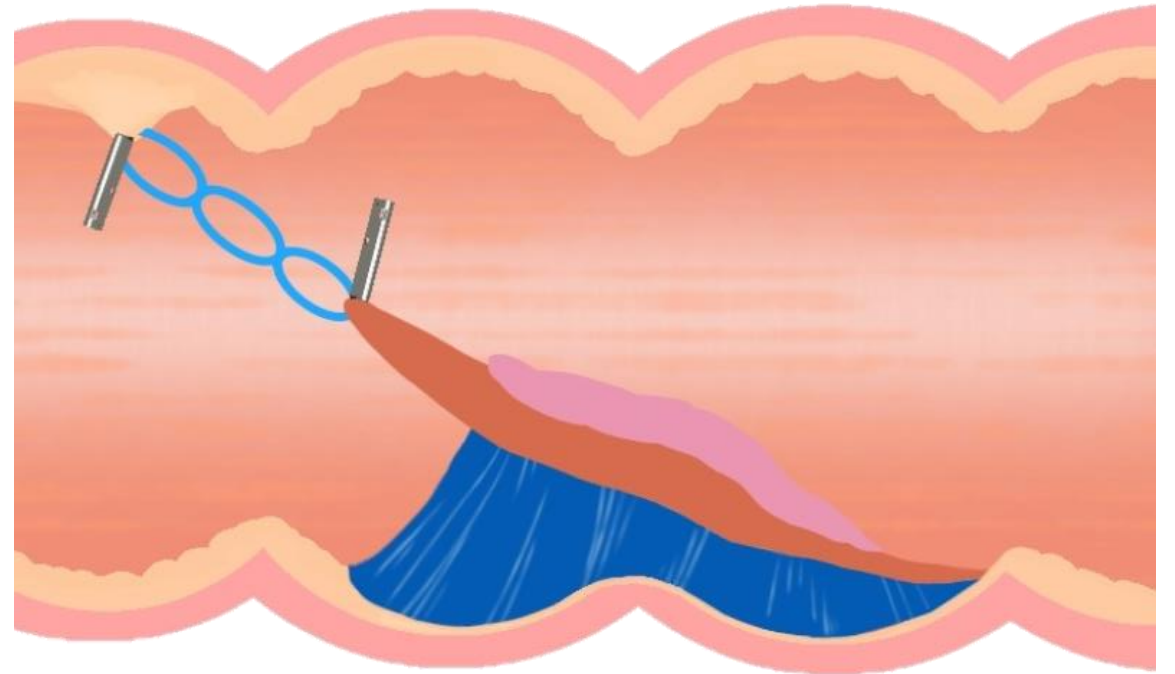
- The real key factor here is “when” and “where” you place the traction device.(this applies for any kind of traction device)
- It actually took me 7 years to find out the correct “when” and “where” to place the countertraction.

Which do you think is the idealistic countertraction placement during ESD ?

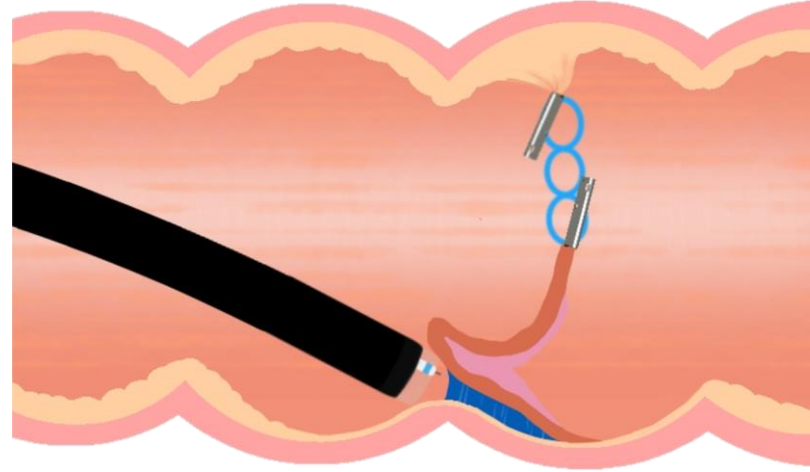
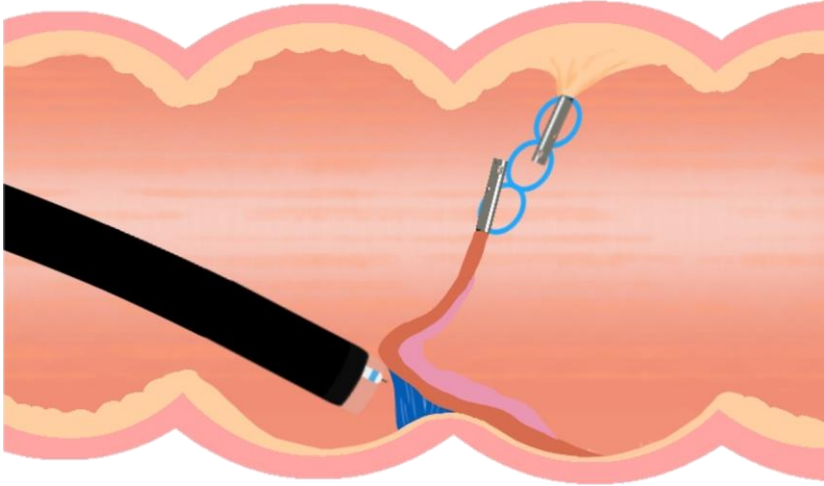
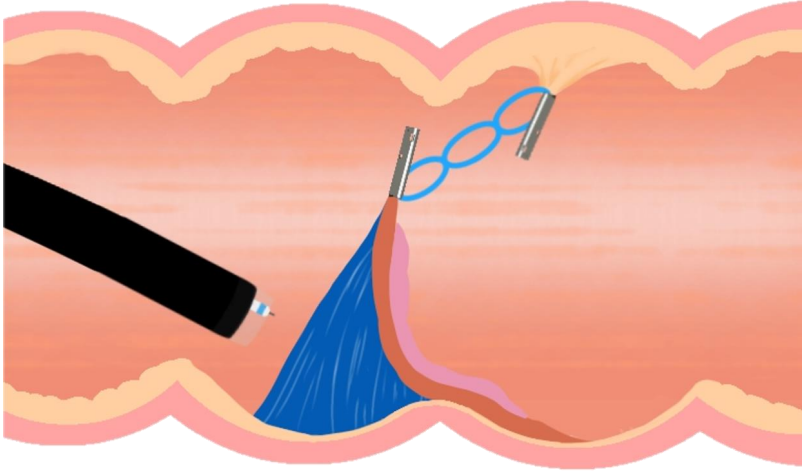
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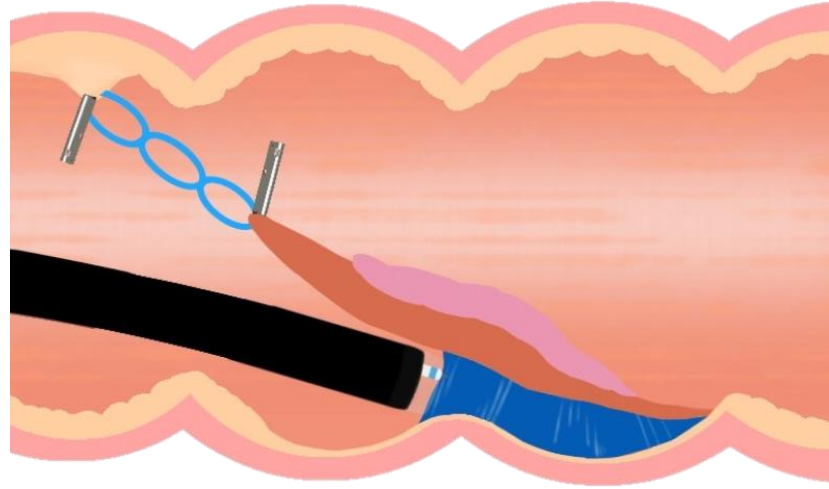
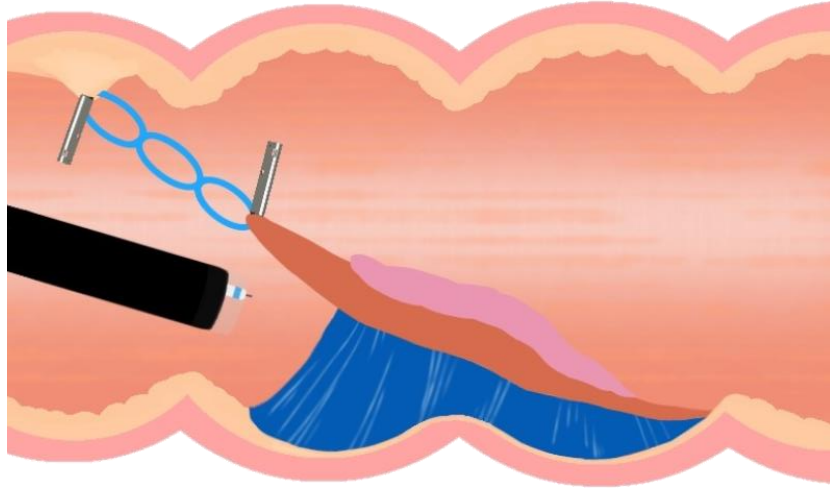
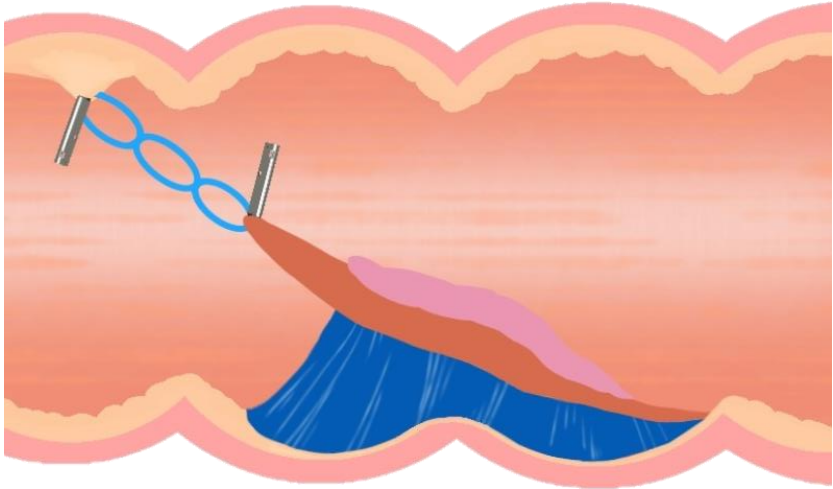
B



A

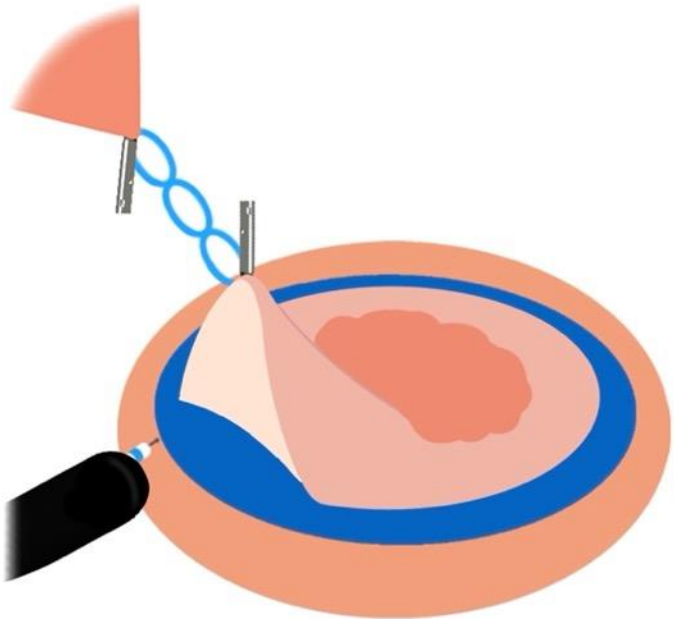


B

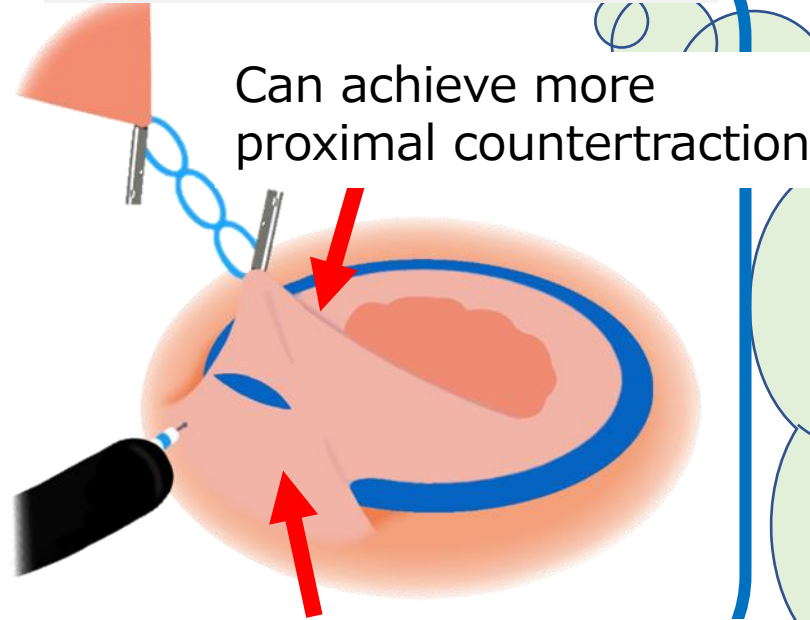


# “When” you want to apply the countertraction

After circumferential cut

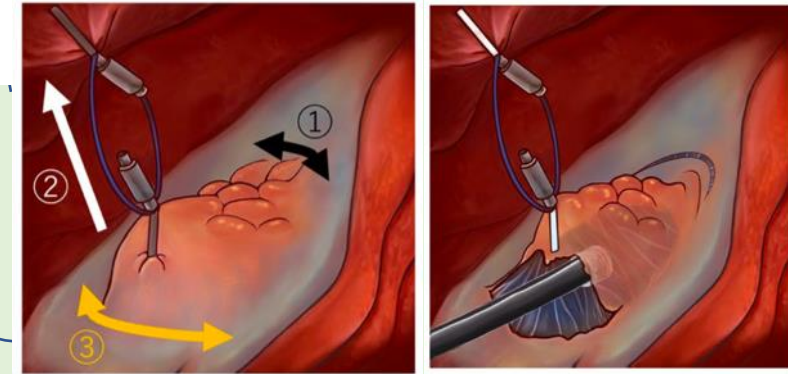


Apply just before circumferential cut



After at least  $\frac{3}{4}$  of oral edge

PCM with traction



Ide D, Ohya TR, et al. Surg Endosc. 2020



# Multi Loop Traction Device(MLTD)

## Multi Loop Traction Device

マルチループトラクションデバイス



Multi loop traction made by Polyethylene resin

Support ESD

- Can be used with any kind of clip
- Easy delivery TTS
- Adjustable traction
- Can be easily removed after dissection
- Makes ESD fun!!

## Case1 (Colon) : Cecum LST-G-H $\Phi$ 50mm



### Key Points

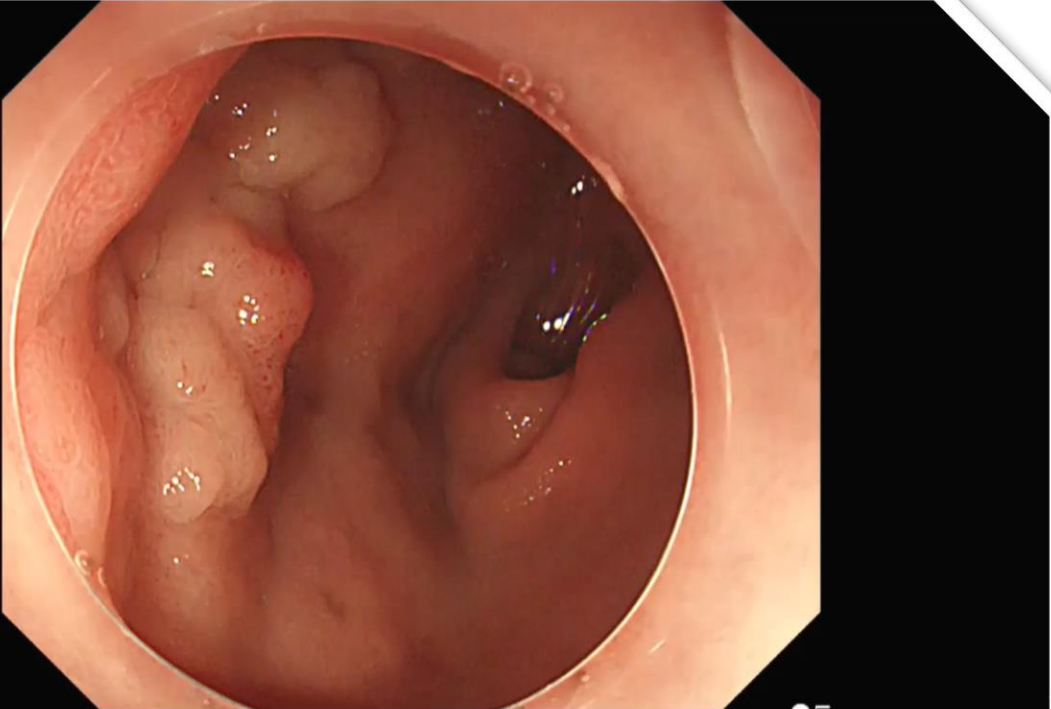
- ✓ **Pocket-creation method with traction**
- ✓ Start with the 3/4 of distal side semi-circumferential dissection.
- ✓ Try to place the traction in the ascending colon distally and on the contralateral side of the lesion imaging a pocket creation

**Pathology : tub1, depth M, HM0, VM0**

Flush knife (VIO3 Endocut I 2-2-2 / Swift 4.5)



## Case 2 (Duodenum) : Anterior Bulb IIa $\Phi$ 38mm



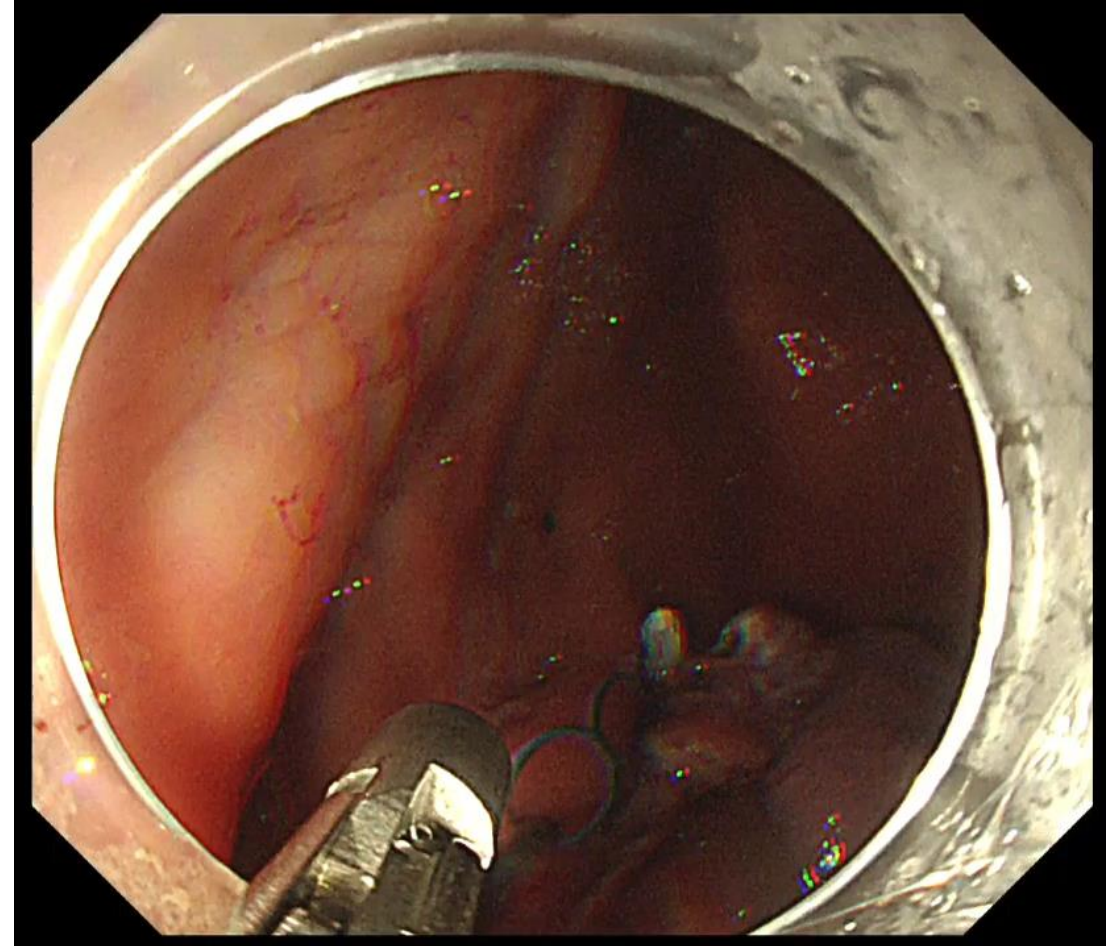
### Key Points

- ✓ Pocket-creation method with traction device.
- ✓ After delineating your goal line, pull from the Stomach

**Pathology : High-grade tubular adenoma, HM0, VM0**  
Flush knife (VIO3 Endocut I 2-2-2 / Swift 4.5)

# How to detach MLTD

1. Simply grasp one of the edges of the loop with any kind of forceps.
2. While having the assistant keep a firm grip on the forceps, gently pull the forceps into the endoscopic working channel.
3. You will feel a “snap” like sensation of the loop tear off.

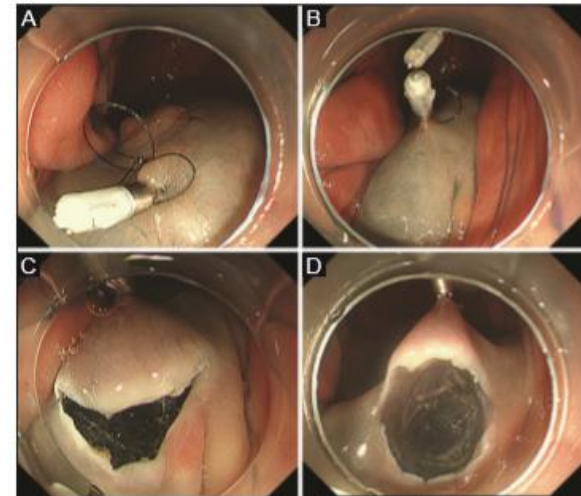
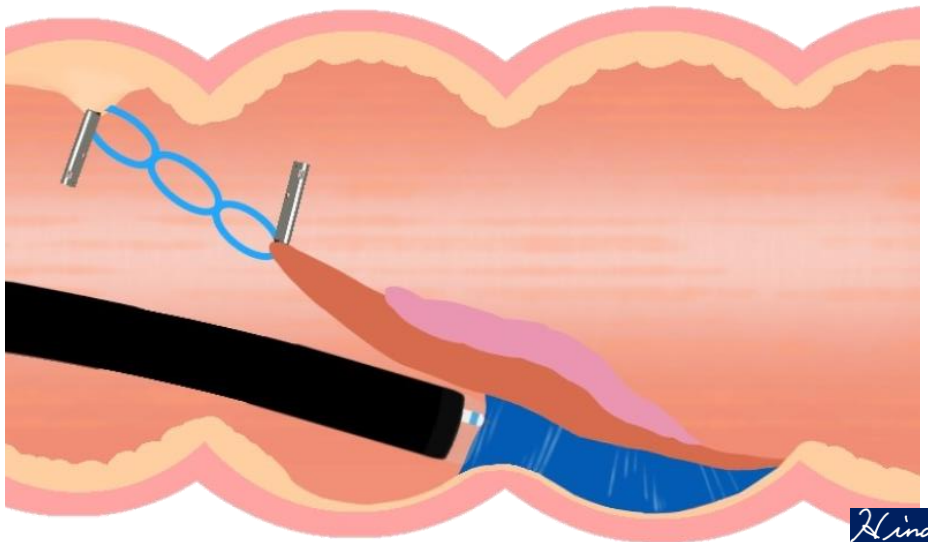
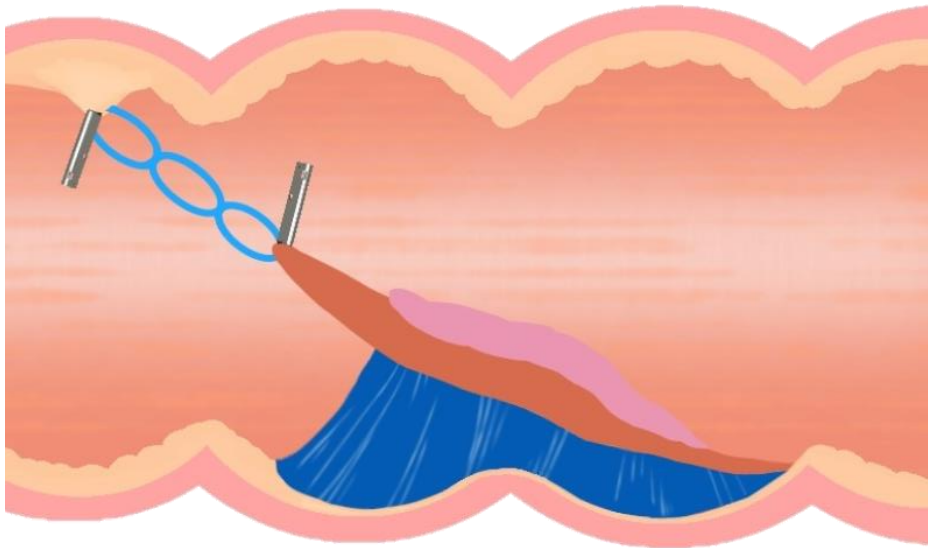


# Take home message

Use TTS off-set countertraction in the best situation

Place as anal as possible to the lesion

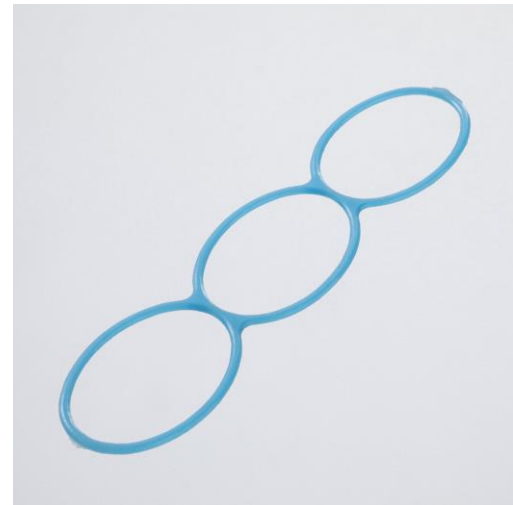
Image the pocket creation method when placing the traction



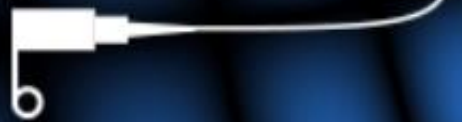
# Important factor for ESD

Not too easy, but not too difficult

- The Key physician in starting up ESD must think that this procedure is quite fun and realistic (medical cost, time, etc)
- It used to be a far East Japanese fancy procedure
- Proper devices and strategy has made ESD a fairly reasonable treatment with the correct strategy



JIKEI ENDOSCOPY



# Circumferential LST 30cm

