

淺談大腸手術跟造口

台南市立醫院

GS 周易韋

名詞釋義

- Stomy: 做造口的這個“術式”
- Stoma: 指“造口”本身

Stoma的種類

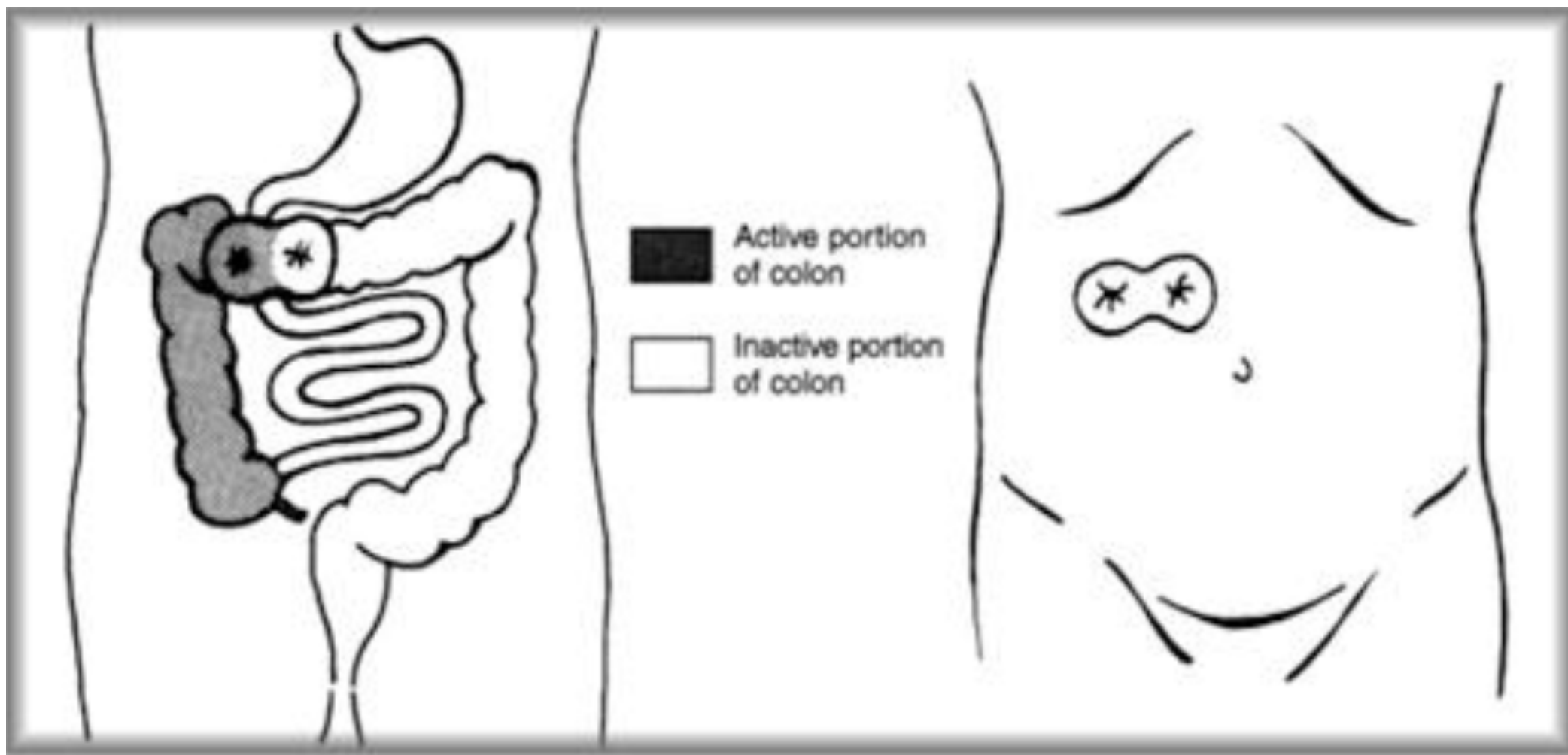
T-loop colostoma

End-colostoma

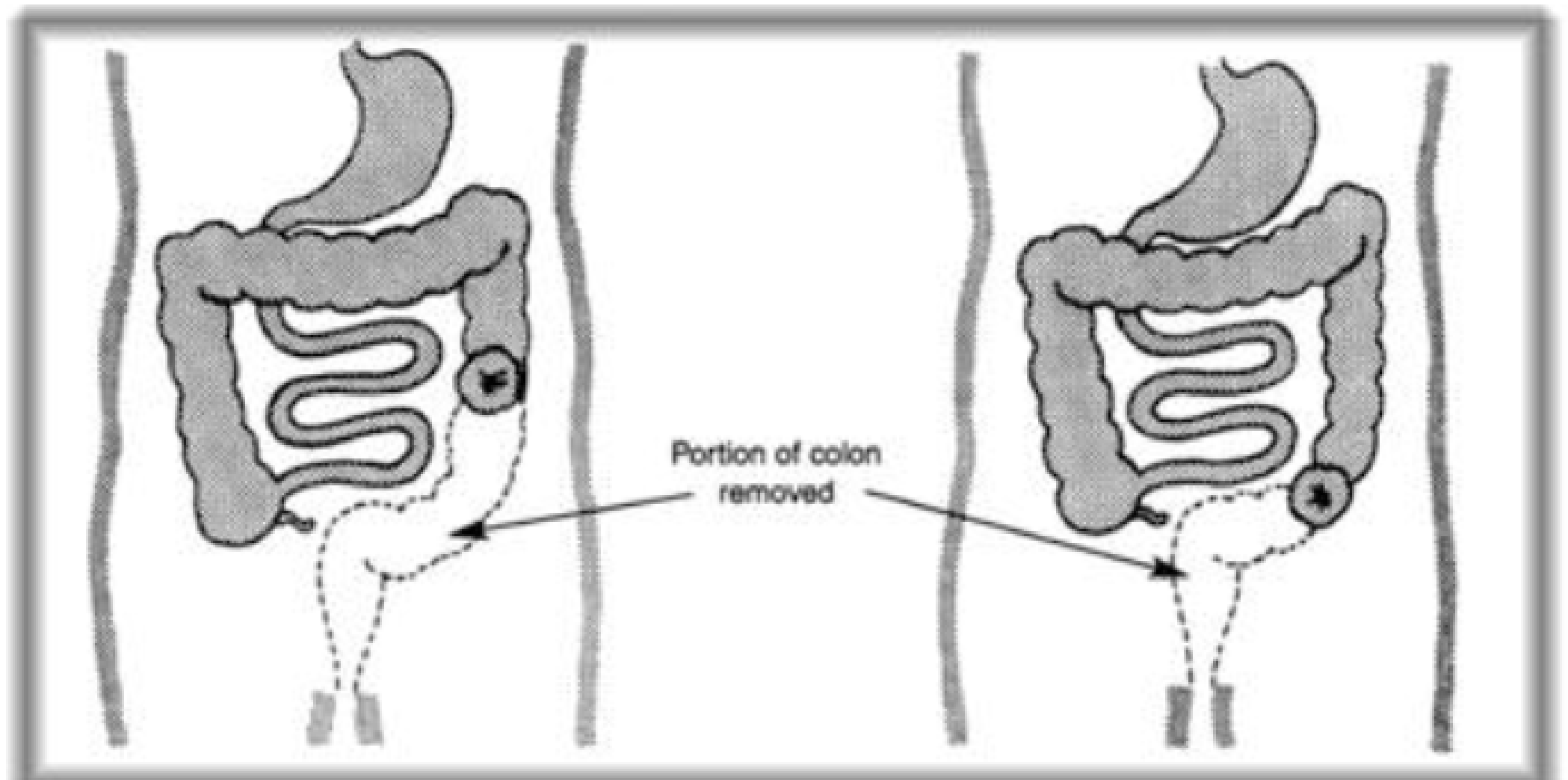
Double barrel colostoma

Ileostoma

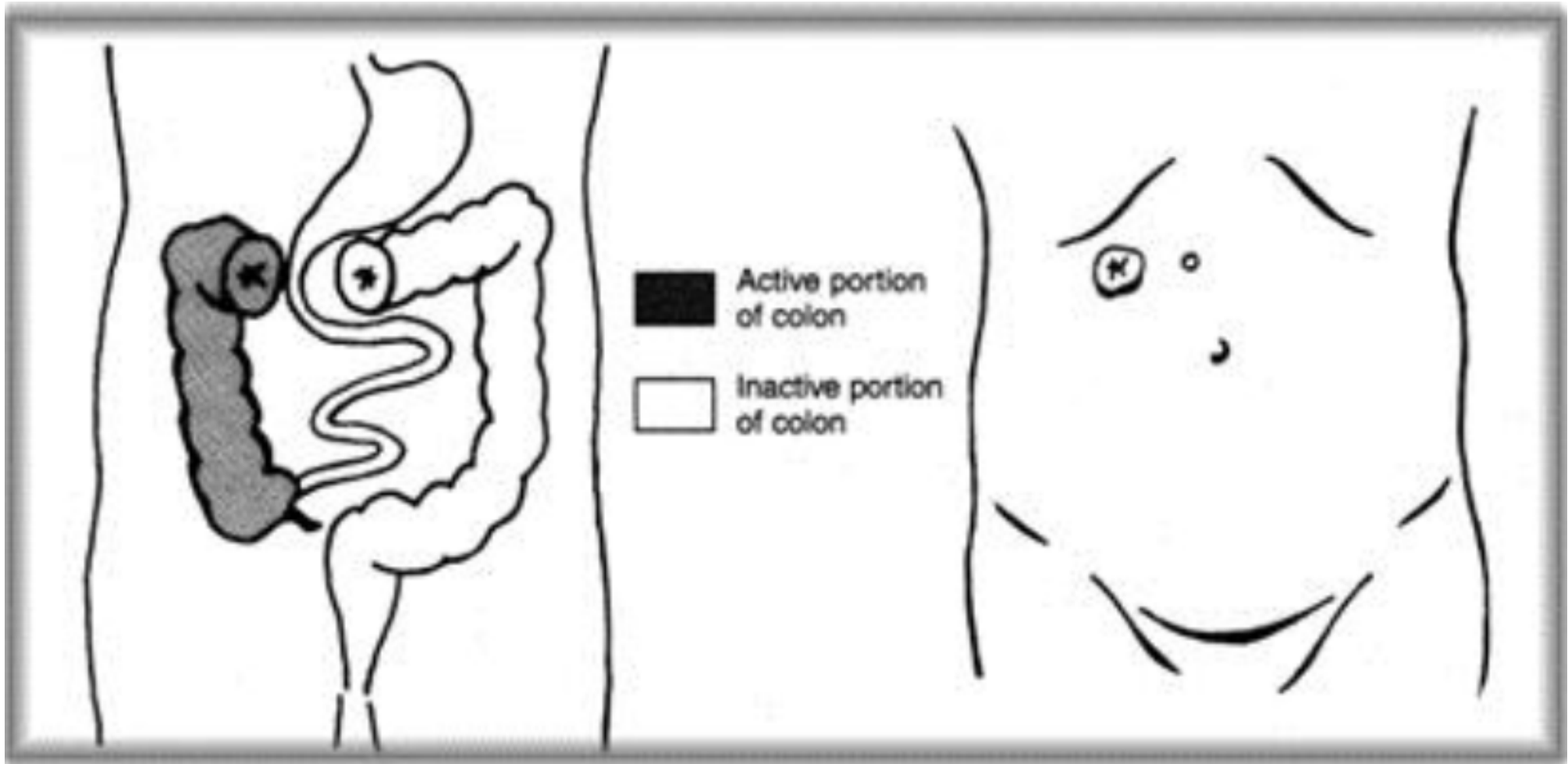
T-loop colostoma



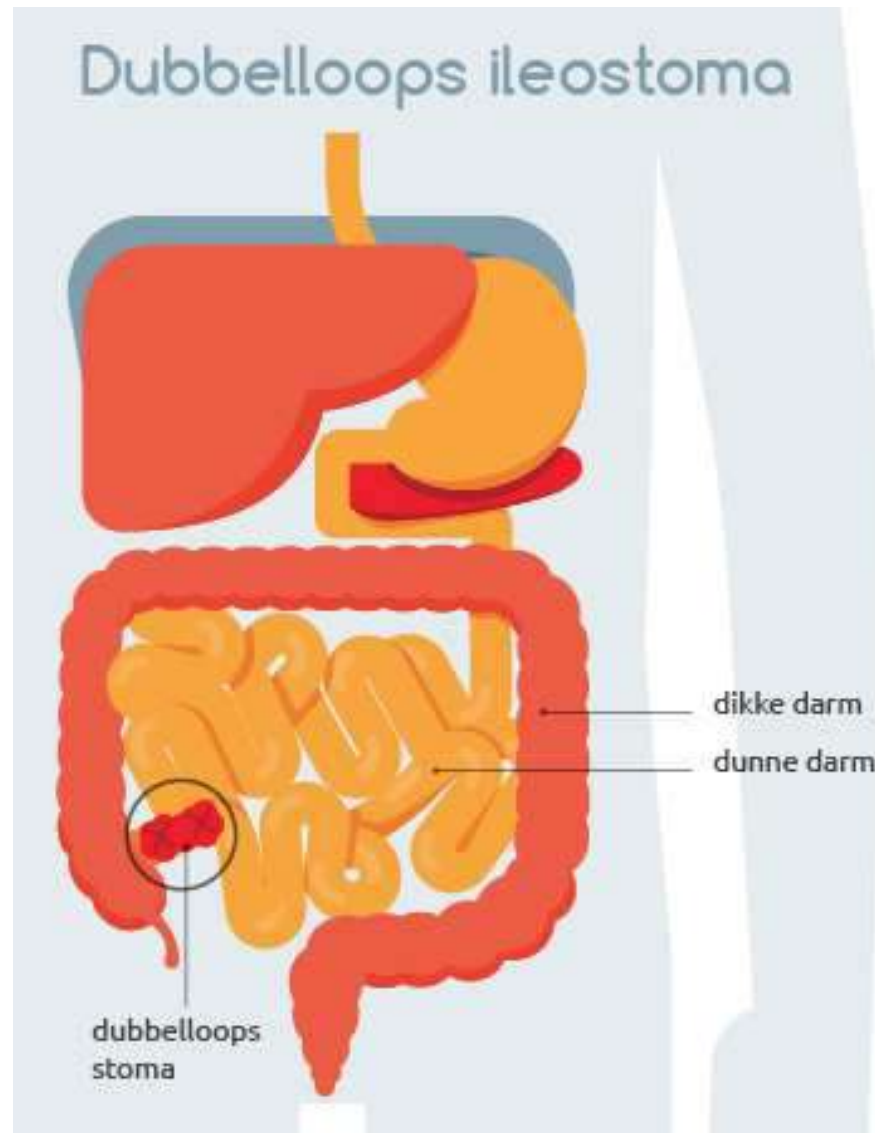
End-colostoma



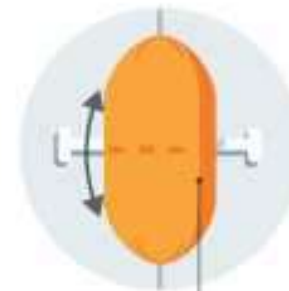
Double barrel colostoma



Loop ileostoma



Een stukje darm (lis) wordt door de buikwand naar buiten geleid.



De darmlis rust (tijdelijk) op een kunststofstaafje/huidbruggetje.



De darmlis wordt in de lengte opengesneden, omgevouwen en aan de huid vastgehecht.



End
stoma



Loop
stoma



Two stomas

Loop ileostoma vs. Loop colostoma

Ileostoma

分泌量多, 液體狀, bile色
➤ 700-800mL/day, 動輒破1000以上
➤ 容易電解質不平衡

Decompression效果差
➤ 因為有ileo-cecal valve
➤ 術後保護吻合口多

手術較簡單
➤ 小腸在腹腔中是浮動的

Colostoma

分泌量很少, 已經是糞便
➤ 更換次數少, 比較好照顧
➤ 越近端則糞便越液狀, 越遠端則糞便越固體狀

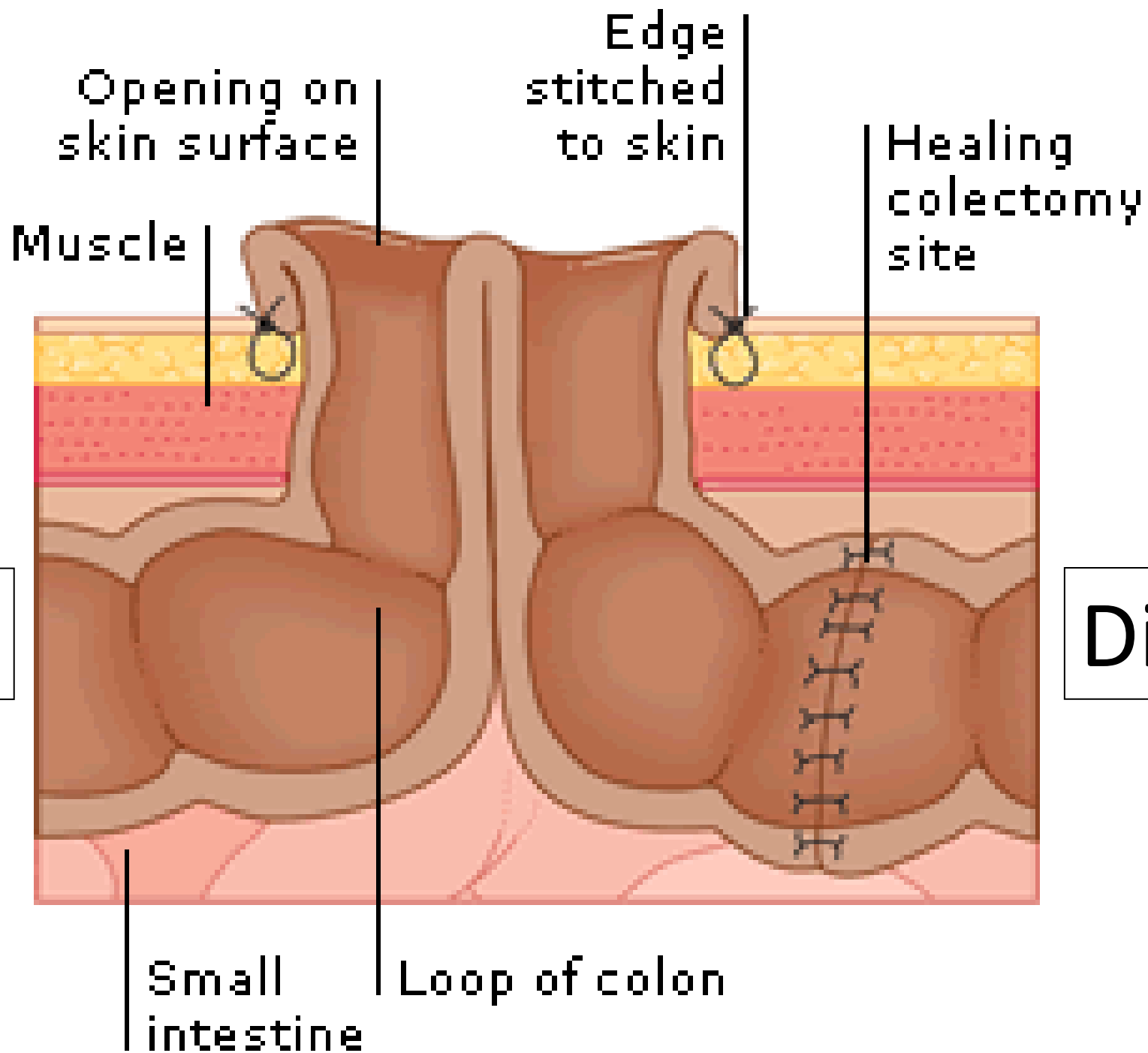
Decompression效果好

手術較困難
➤ 大腸相對比較固定, 且很漲的時候手術不易

為什麼要有stoma?

Afraid of leakage !!!!!

Proximal



考慮需要stoma的因素

- 還是一樣, 怕leak !!!
 - 術前colon因阻塞而非常漲
 - 病人太多內科的co-morbidity
 - Liver cirrhosis
 - ESRD (End-stage renal disease)
 - 年紀太大
 - Anastomosis太低
 - 低位直腸癌
 - 術前, 術中或者術後生命徵象不穩...

常見的大腸術式

Right hemi-colectomy

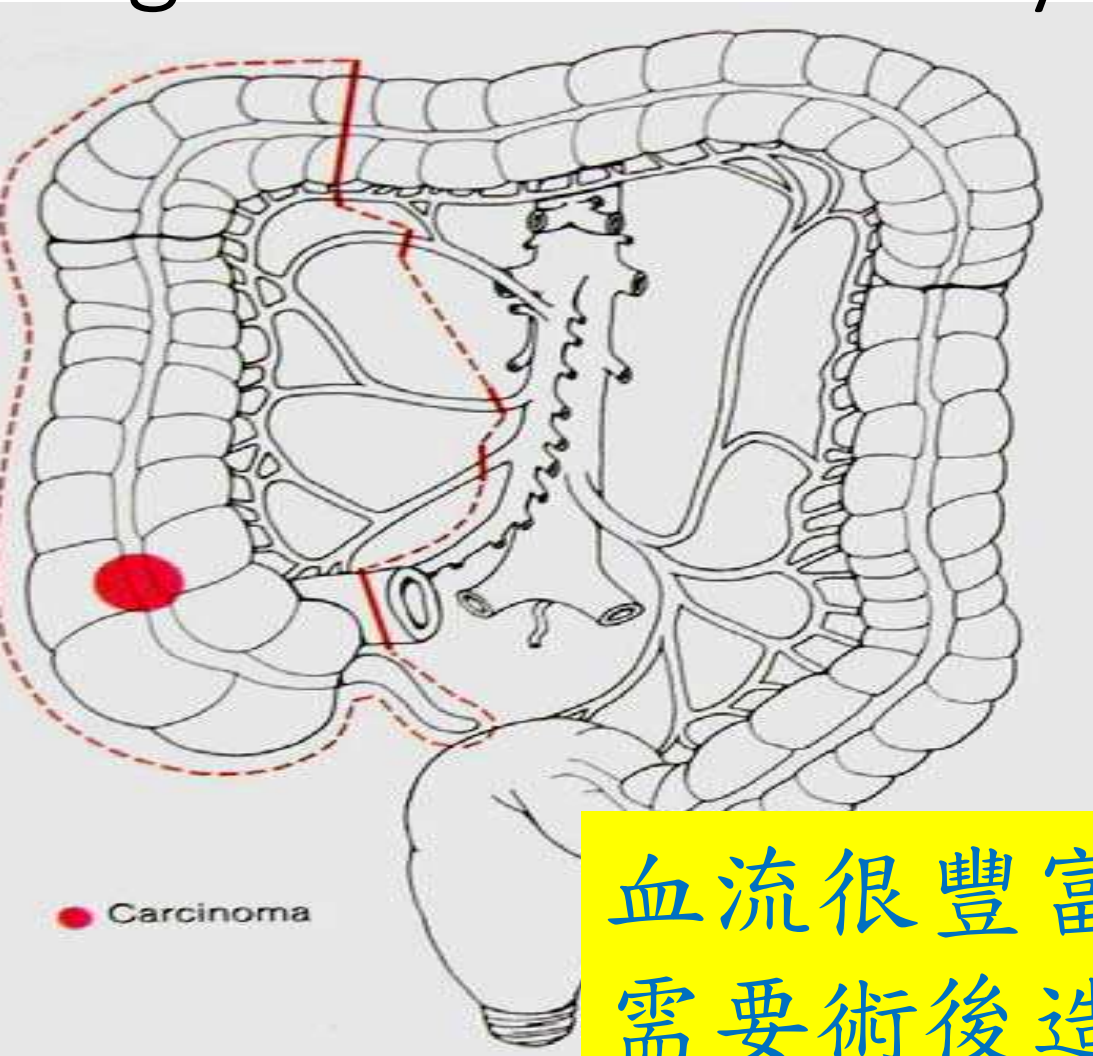


Fig. 23-32 Extent of resection for carcinoma in the ascending colon.

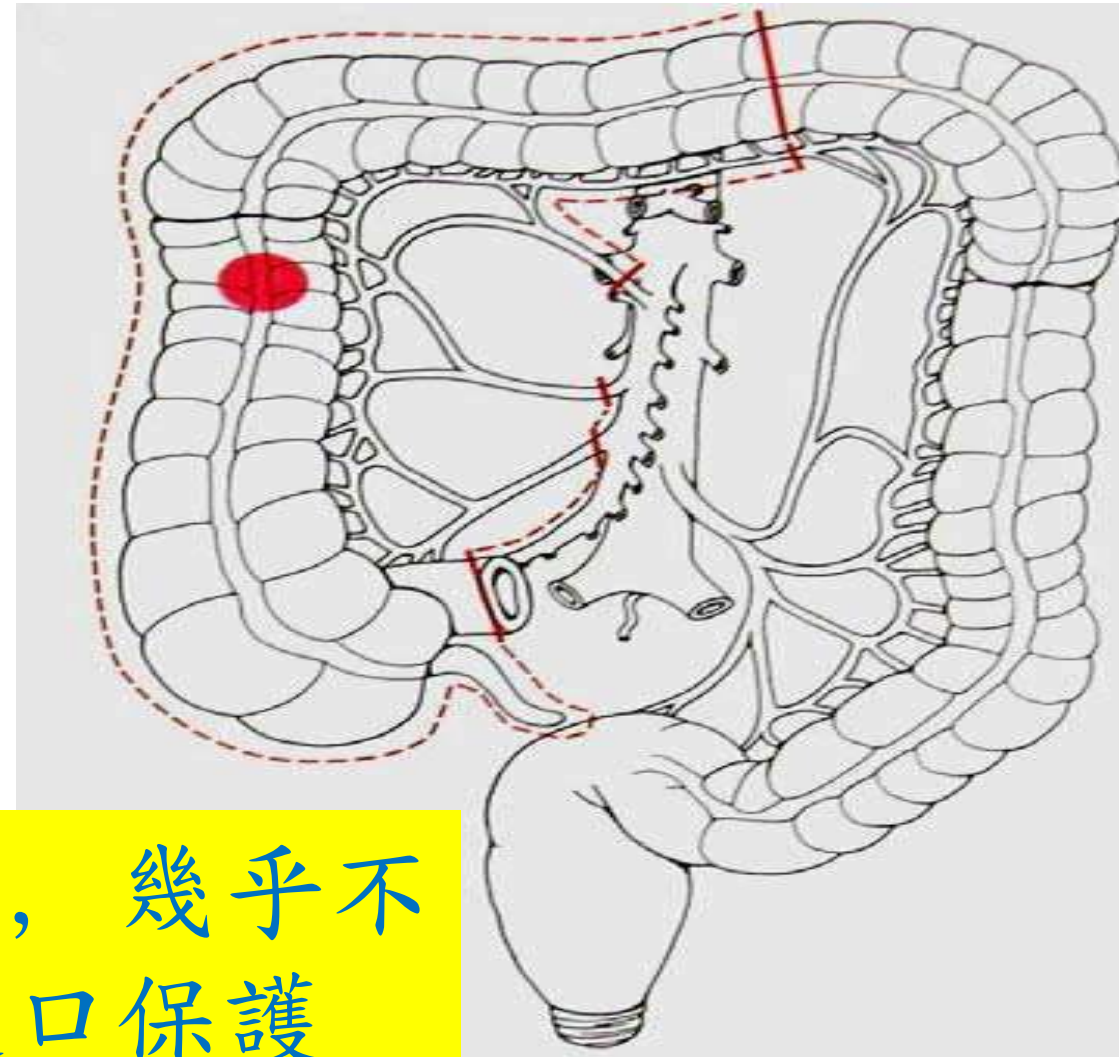
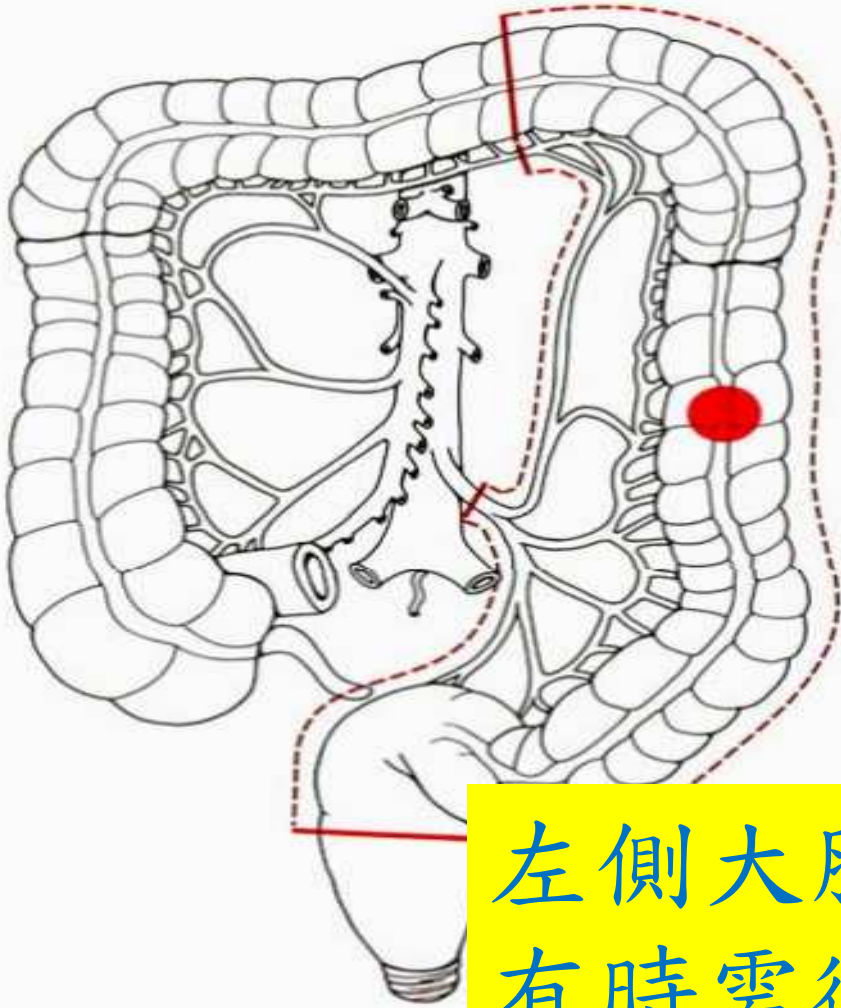


Fig. 23-33 Extent of resection for carcinoma in the ascending colon.

血流很豐富，幾乎不需要術後造口保護

Left hemi-colectomy



左側大腸血流較差，
有時需術後造口

Fig. 23-37 Extended resection for carcinoma in the sigmoid colon.

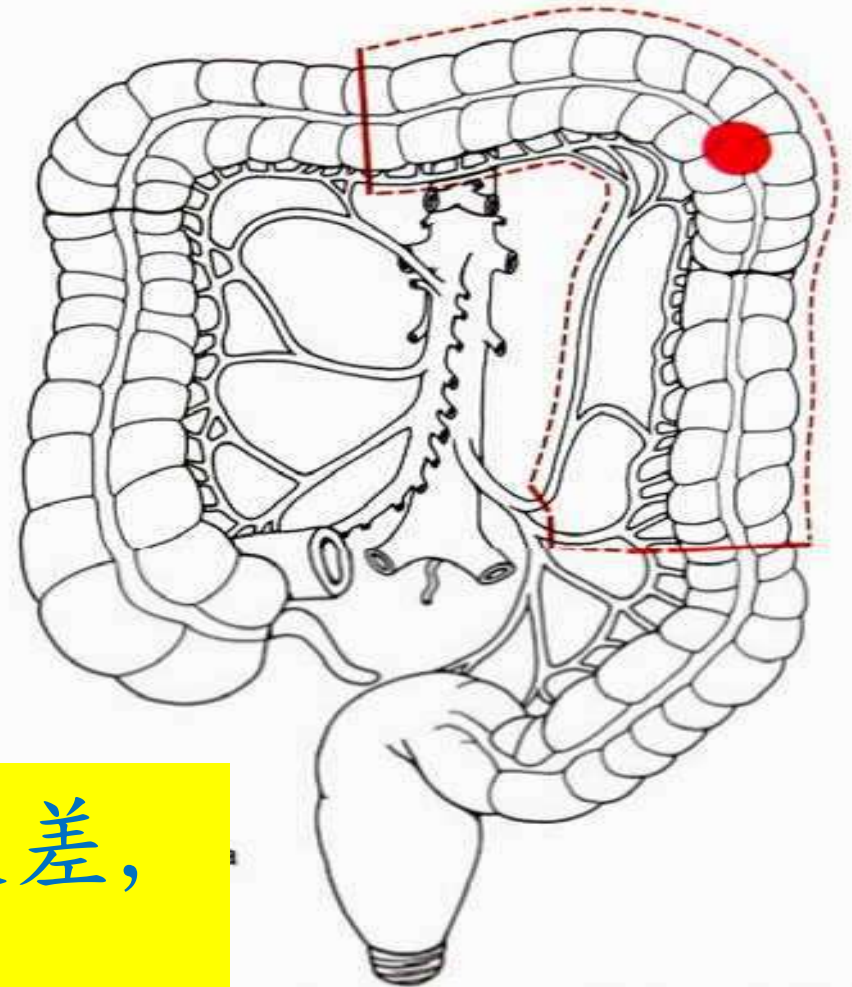
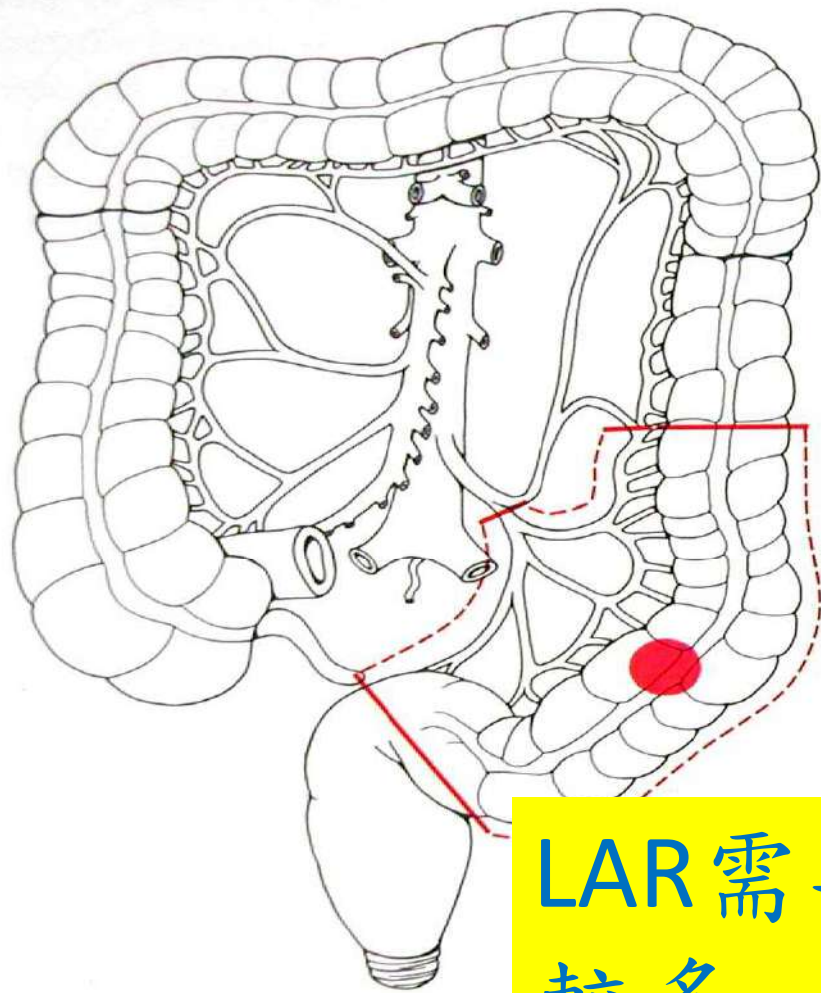
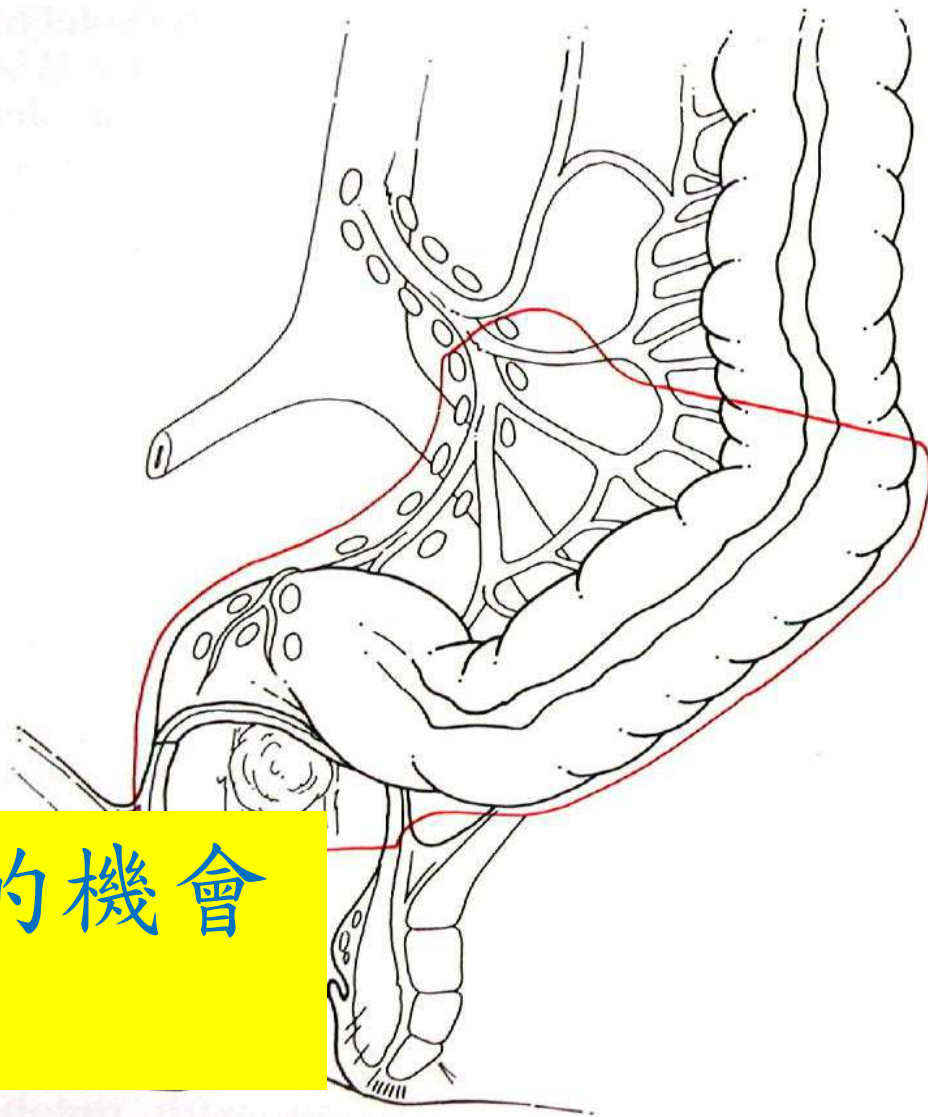


Fig. 23-38 Extent of resection for carcinoma in the splenic flexure.

Sigmoid & LAR(low anterior resection)

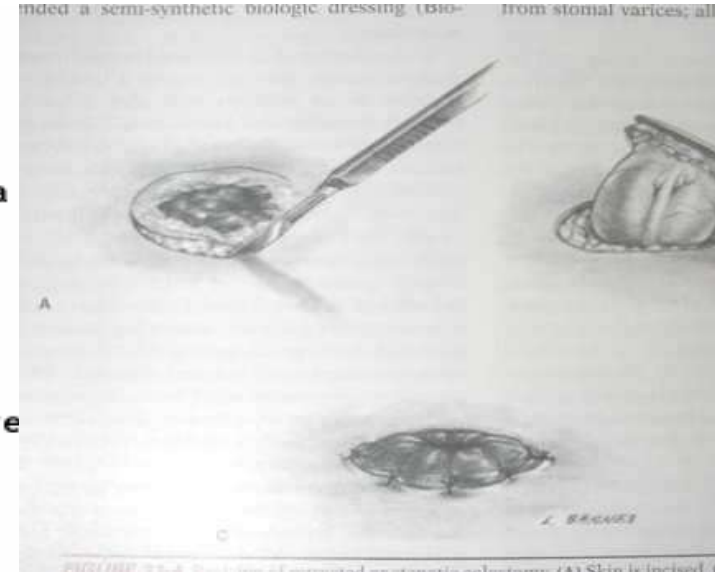
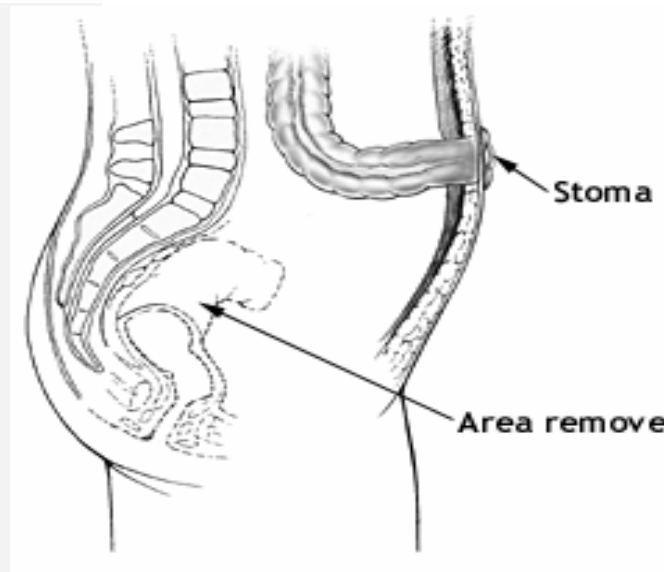
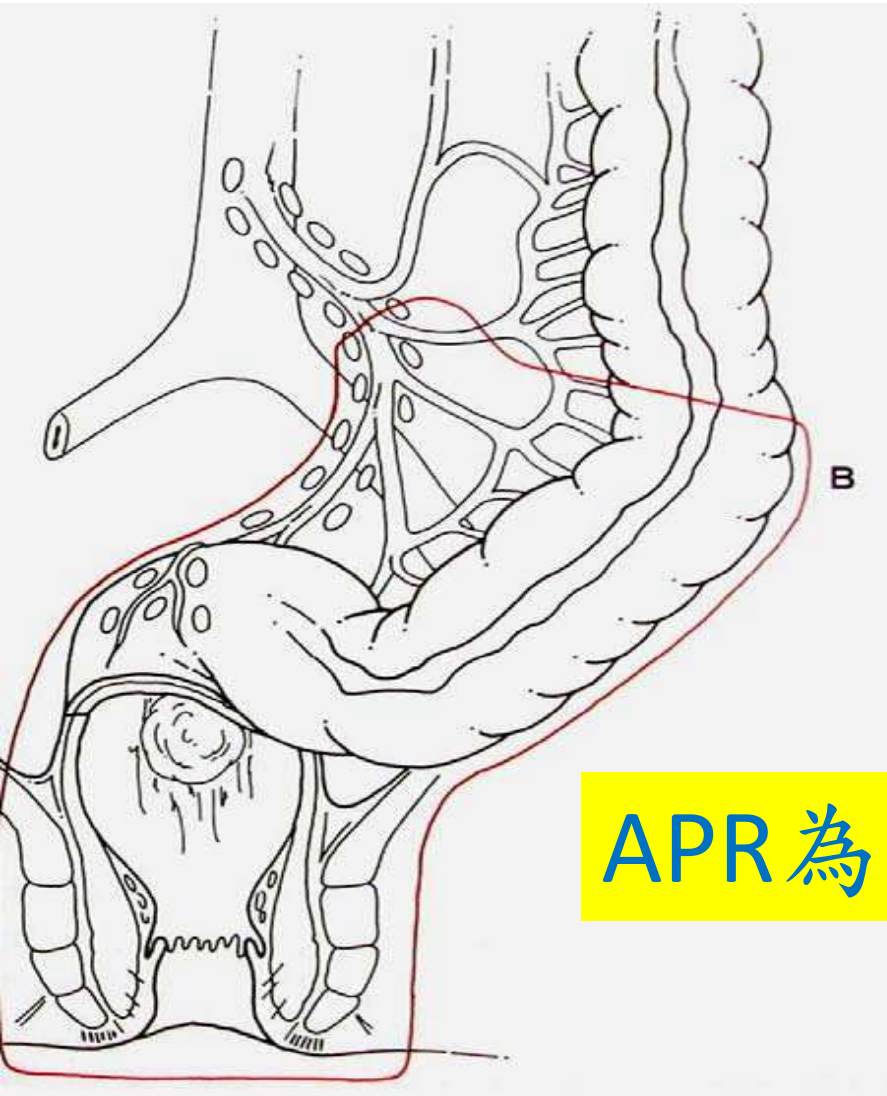


A



LAR需要造口的機會
較多

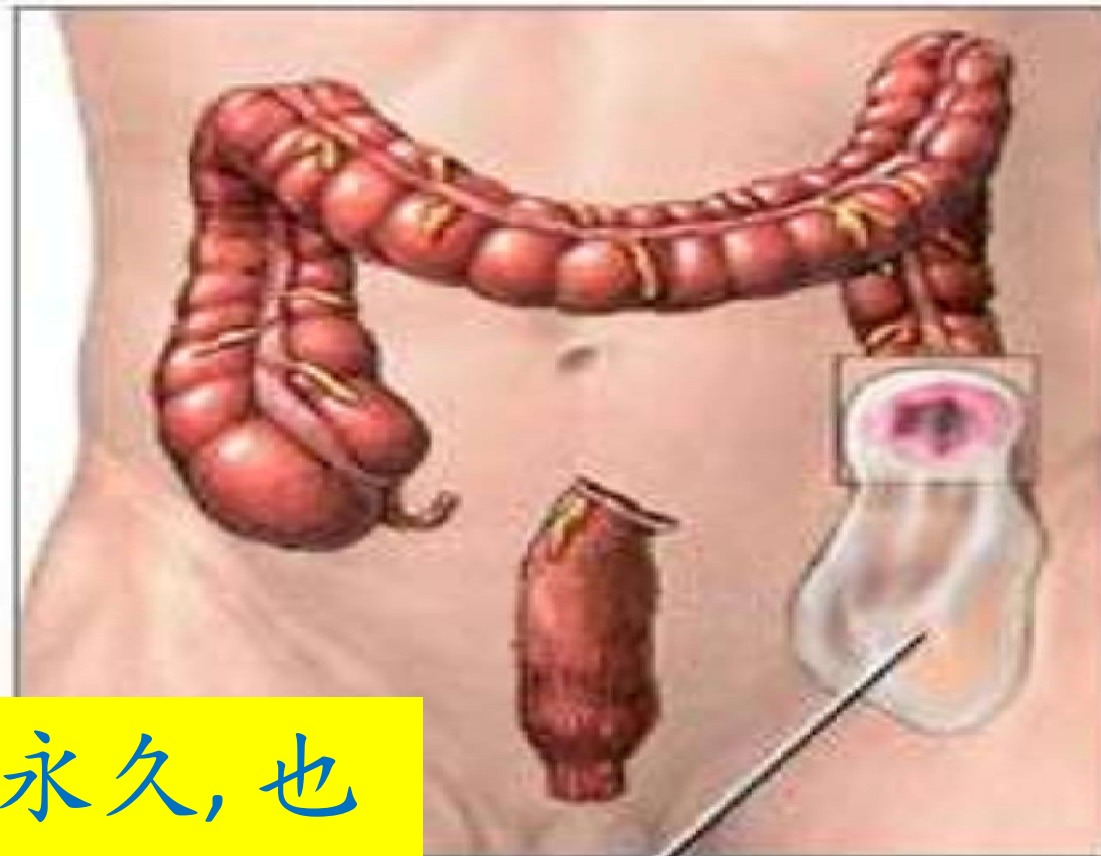
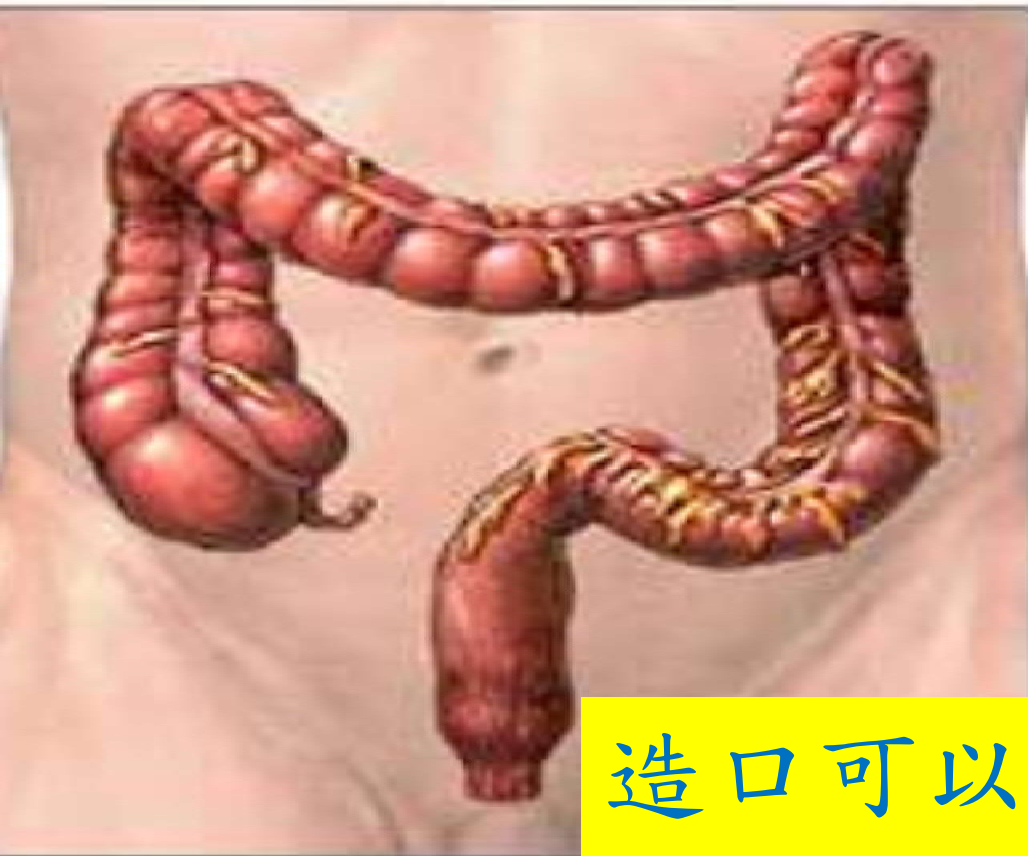
APR(abdomino-perineal resection)



APR為永久之造口



Hartmann's procedure



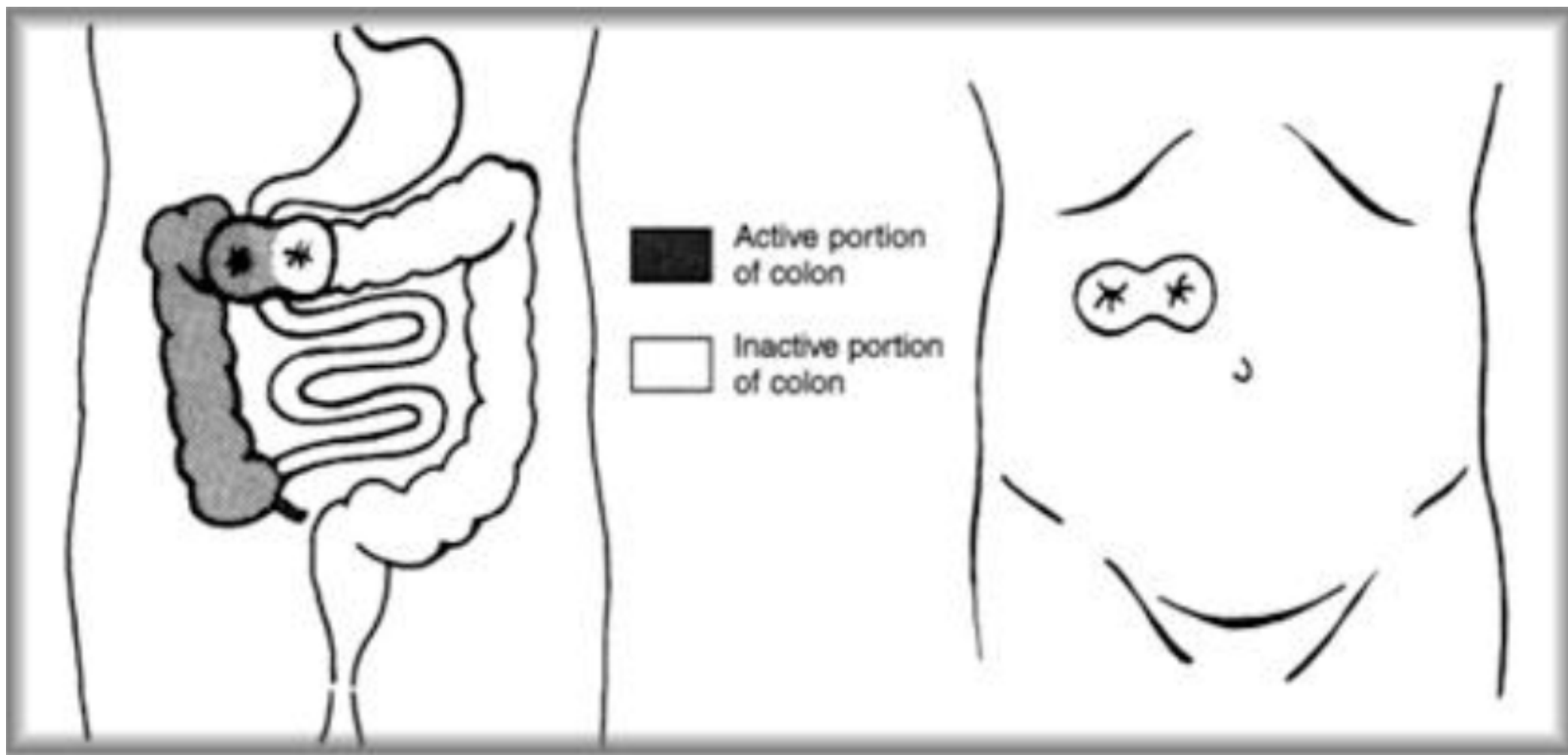
造口可以是永久, 也可以是暫時的

bag

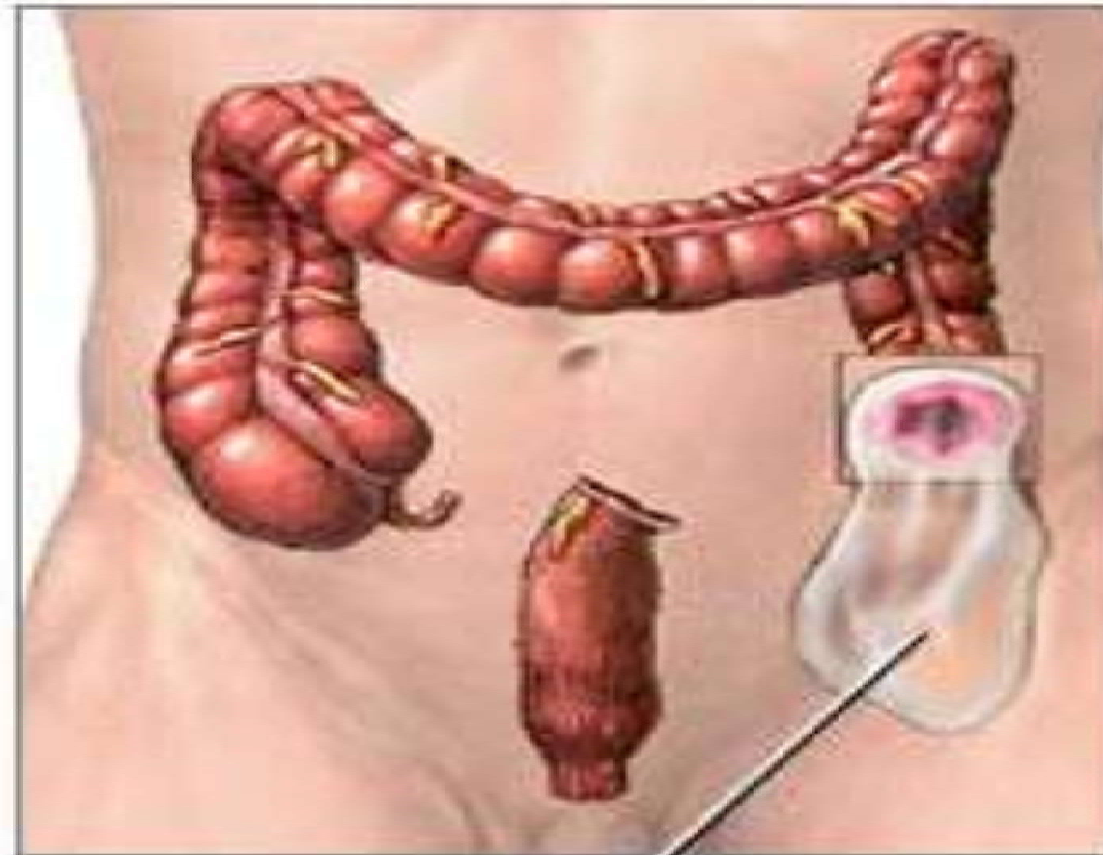
觀念No.1

End-colostoma跟Loop colostoma
take-down的方式有什麼不同？

T-loop colostoma



Hartmann's procedure



Colostomy bag

觀念No.2

Colon cancer完全阻塞治療的方式

Colon cancer with total obstruction

3 stages treatment

VS.

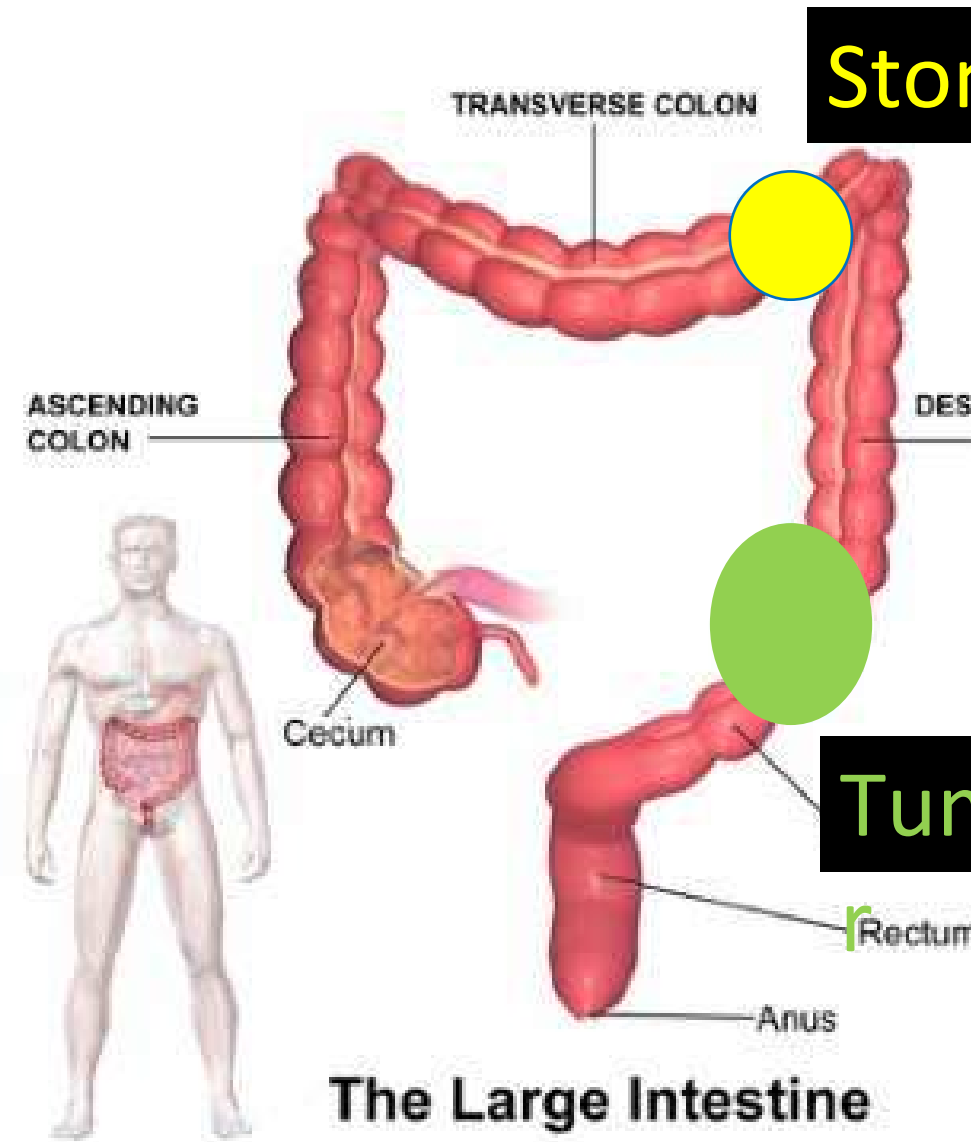
2 stages treatment

3 stages treatment

- 1st operation
 - Decompressive colostomy
- 2nd operation
 - Curativer resection → Laparoscopic or open
 - Left hemi-colectomy
 - Sigmoid colectomy
 - LAR
- 3rd operation
 - Colo-stoma take down

10-14 days later...

3 months later...



2 stages operation

- 1st + 2nd operation
 - **OPEN** curative resection + intra-OP colon irrigation
 - 因為病人肚子很漲，再加上術中洗腸子清理糞便，通常也只能open手術
 - Need diverting colostoma to protect anastomosis from leakage
- 3rd operation **3 months later...**
 - Colostoma take down

Alternative 2 stages operation

- 1st operation
 - Decompressive colostomy
- 10-14 days interval **10-14 days later...**
 - FFP transfusion
 - Parenteral nutrition support
 - Stoma decompression
- 2nd + 3rd operation
 - Curative resection + colostoma take down
 - 因為已經有了colostoma for decompression，腸子已經不漲，可以好好的colon preparation
 - 可以LAPAROSCOPIC approach
 - 此時take down手術後的leak機率已經降低

Case

許O菱

1064-01X

- 49 y/o
- Admission on 2017-07-15
- Discharge on 2017-08-07
- Past history
 - Medical history
 - HTN(-), type II DM(-)
 - Surgical history
 - Denied operation before
- Alcohol(-), Betel nut(-), Cigarette(-)

History summary

- 2017-07-15
 - Sent to ER due to abdominal fullness
 - KUB
 - Abdominal CT with/without contrast
 - Admission
- 2017-07-17
 - Panendoscopic exam
- 2018-07-19 Colonoscopic exam + biopsy



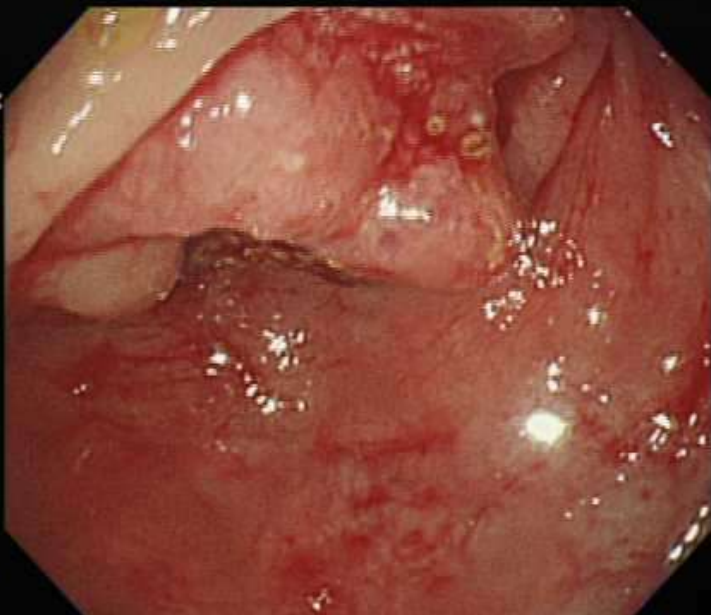
ID No. :
Name :

Sex : Age :
D.O.Birth :

07/19/2017
11:39:23

Ct: N Eh: A5
Ce: 2 Z: 1.0

Physician :
Comment :



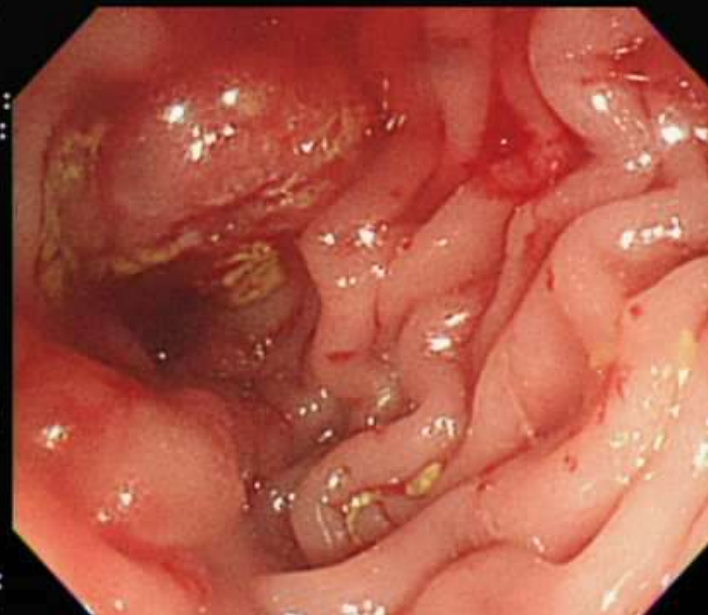
ID No. :I
Name :

Sex : Age :
D.O.Birth :

07/19/2017
11:38:38

Ct: N Eh: A5
Ce: 2 Z: 1.0

Physician :
Comment :



Pathological report

- **PATHOLOGIC DIAGNOSIS**

- Intestine, large, colon, 50 cm. from anal verge, endoscopic biopsy.
 - Adenocarcinoma

LUQ T-loop colostomy

2017-07-21

1st operation

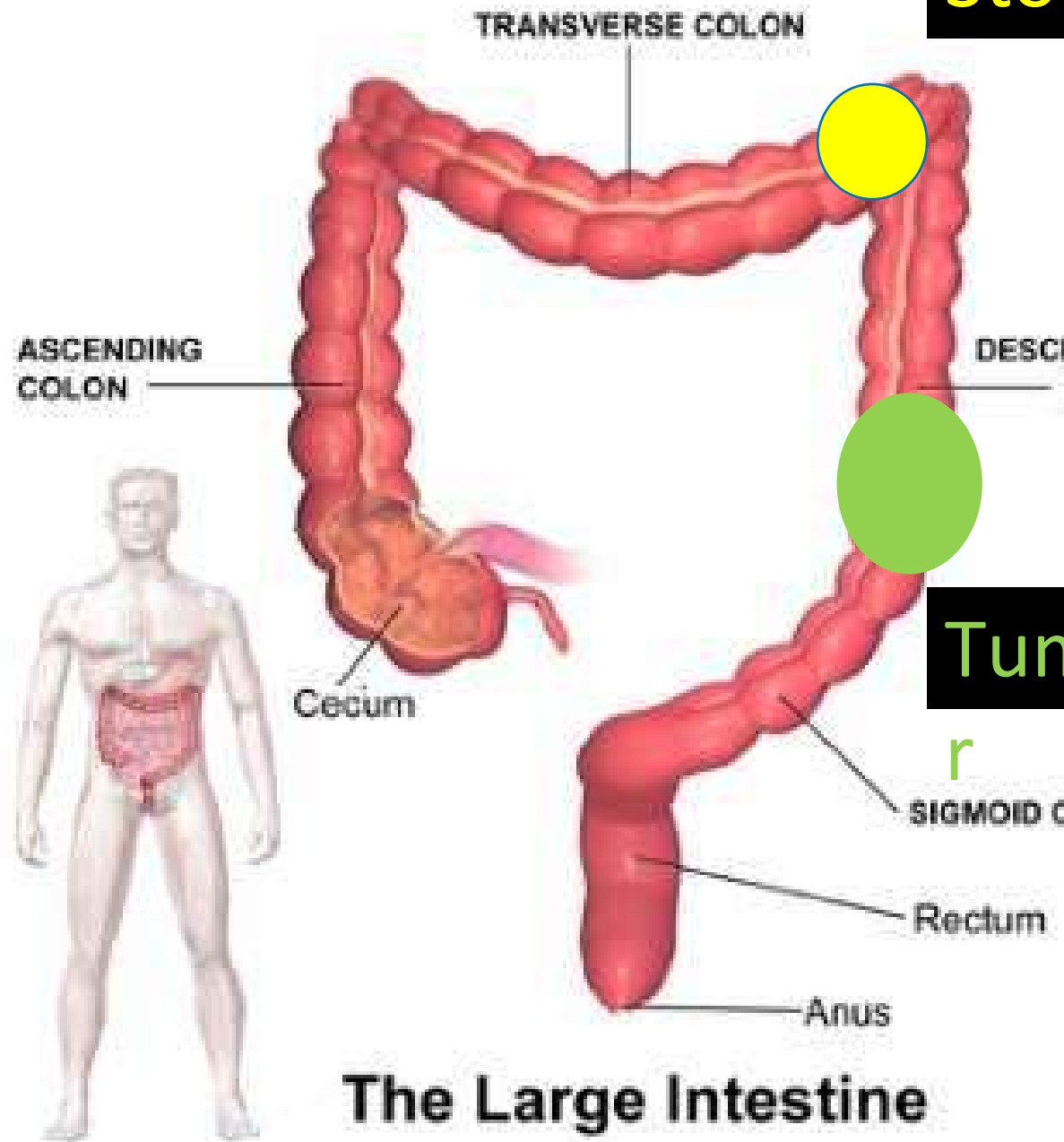
Diagnosis

Descending colon adenocarcinoma with total obstruction



Extremely
distended !!

2017/07/21



Sto

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Between 1st and 2nd operation...

- On clear liquid diet
- FFP x 2 units BID transfusion
 - To reduce colon wall edema
- Parenteral nutrition support
 - Bluid(1000mL) 1 pack QD IVD
- Arrange HRCT for excluding lung metastasis
- 2 days before 2nd operation
 - Start colon preparation

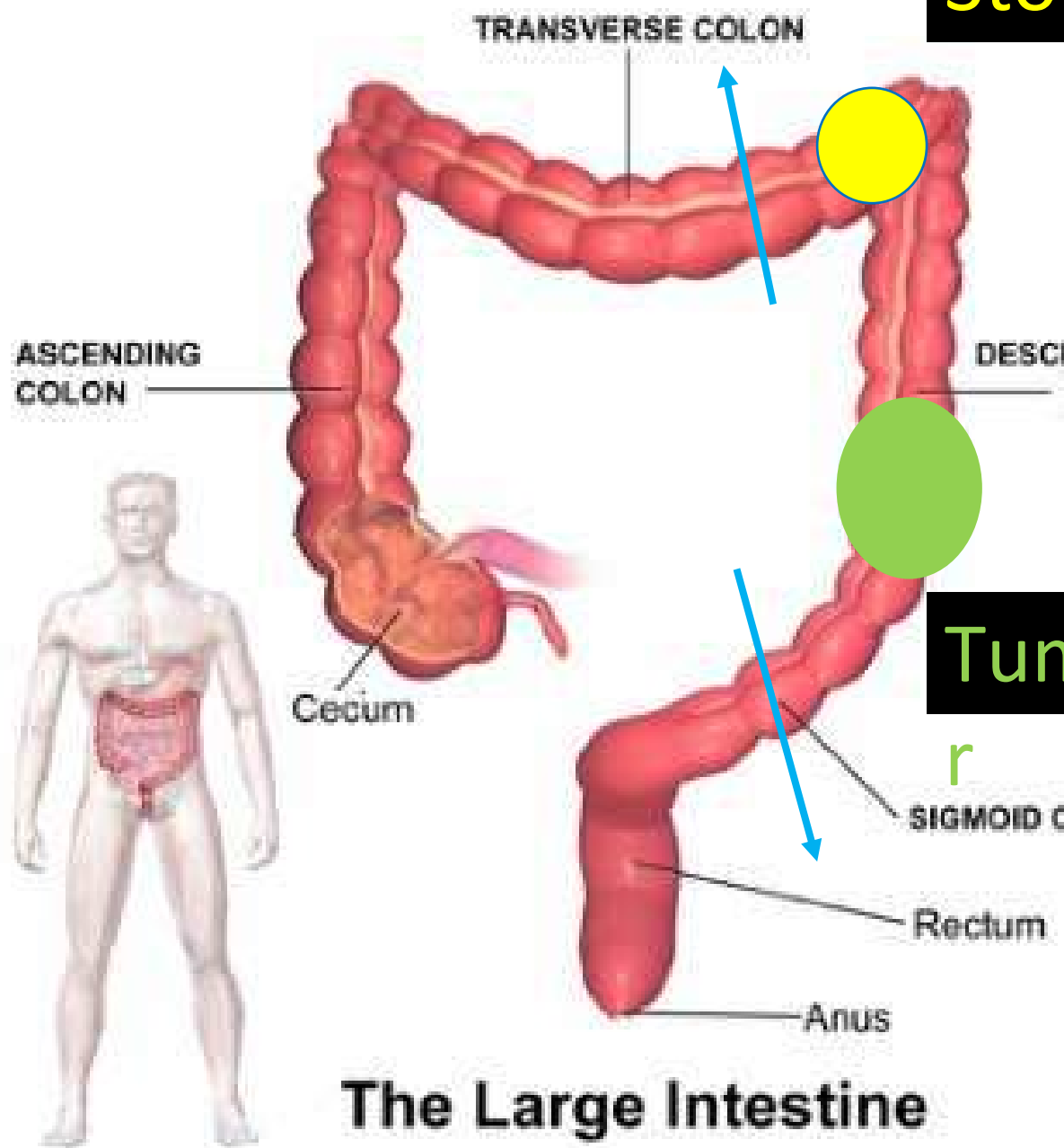
Laparoscopic left hemi-colectomy + LUQ T-loop colostoma take down

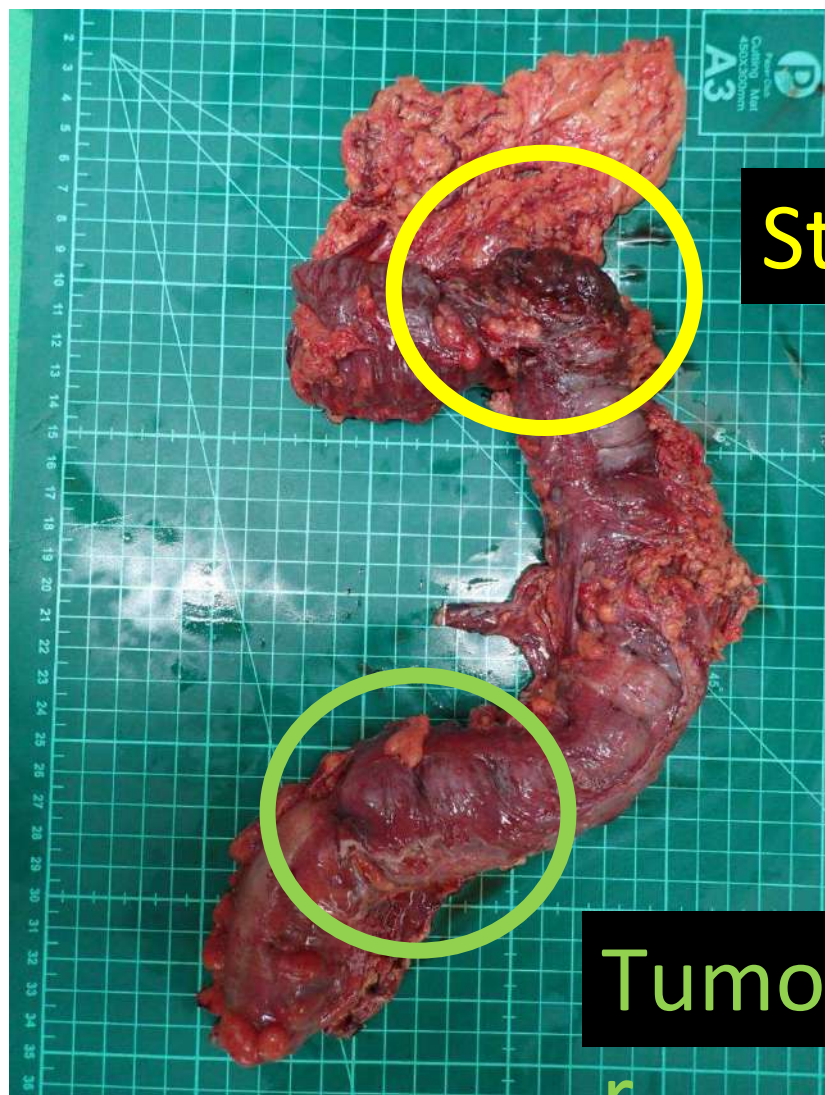
2017-07-31

2nd operation

Diagnosis

Descending colon adenocarcinoma with total obstruction s/p LUQ T-loop colostomy

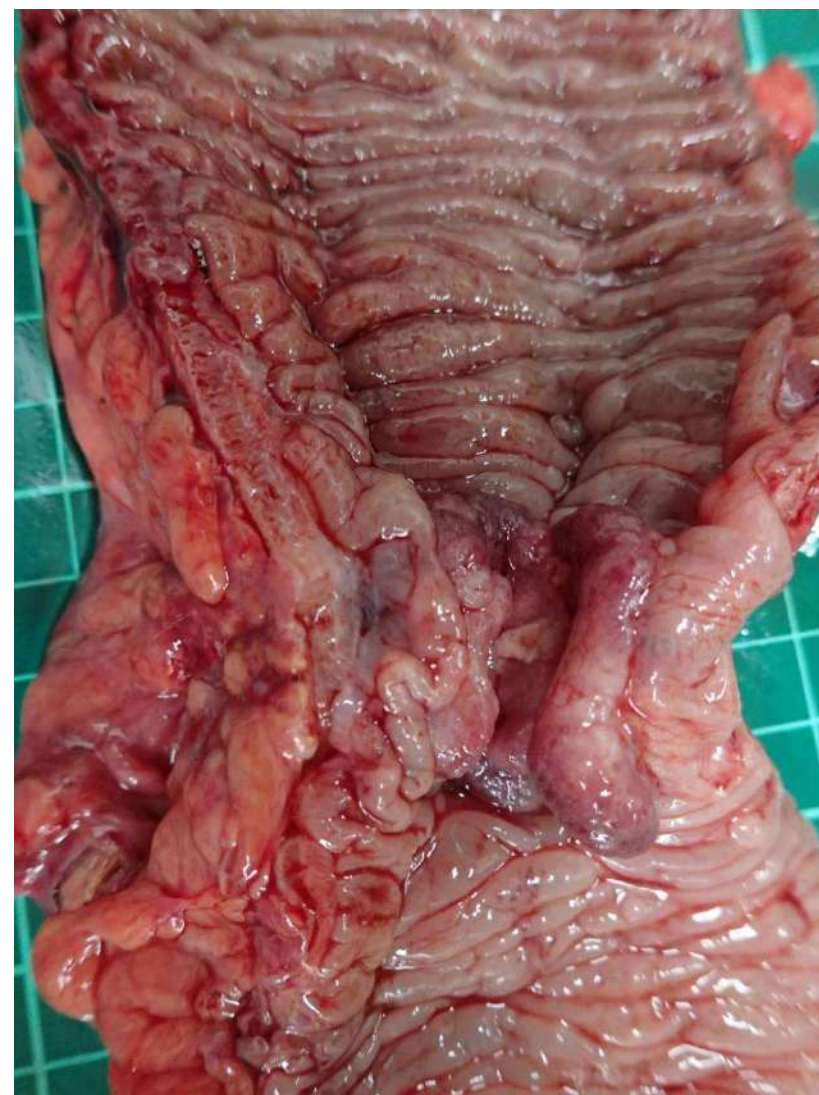




Stoma

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Course after operation...

- Post-OP transfer to AICU
- 2017-08-01, **POD-1**
 - Remove NG
 - Transfer to general ward
- 2017-08-03, **POD-3**
 - Sip water
 - Remove Foley
- 2017-08-04, **POD-4**
 - On clear liquid diet

Course after operation...

- 2017-08-05, **POD-5**
 - On liquid diet
- 2017-08-06, **POD-6**
 - On soft diet
- 2017-08-07, **POD-7**
 - Remove J-P drain
 - Discharge and follow up at OPD

Pathological report

- PATHOLOGIC DIAGNOSIS

- Intestine, D-colon, left hemicolectomy (LH)
 - Adenocarcinoma, moderately differentiated, invaded into pericolic soft tissue
- Surgical margin, bilateral and CRM, LH
 - Free of malignancy
- Lymph nodes, regional (4/16), IMA (0/1), dissection
 - Metastatic adenocarcinoma (4/17)
- Intestine, colon, colostomy take down
 - Fibrosis

- Final stage **pT3N2aM0**

有stoma的缺點？

1. Stoma也有complication!
2. 病人主觀的感受...

常見的造口併發症

- 造口周圍皮膚發炎
- 造口狹窄 (stenosis)
- 造口腸段脫出 (prolapse)
- 造口周圍疝氣 (hernia)

Prolapse & Hernia



Case presentation

郭O 0499-84X

- 74 y/o
- Admission on 2017-12-01
- Discharge on 2017-12-26
- Past history
 - Medical history
 - HTN(-), type II DM(-)
 - Surgical history
 - Denied operation before
- Alcohol(-), Betel nut(-), Cigarette(-)

S-loop colostomy

2017-12-02

1st operation

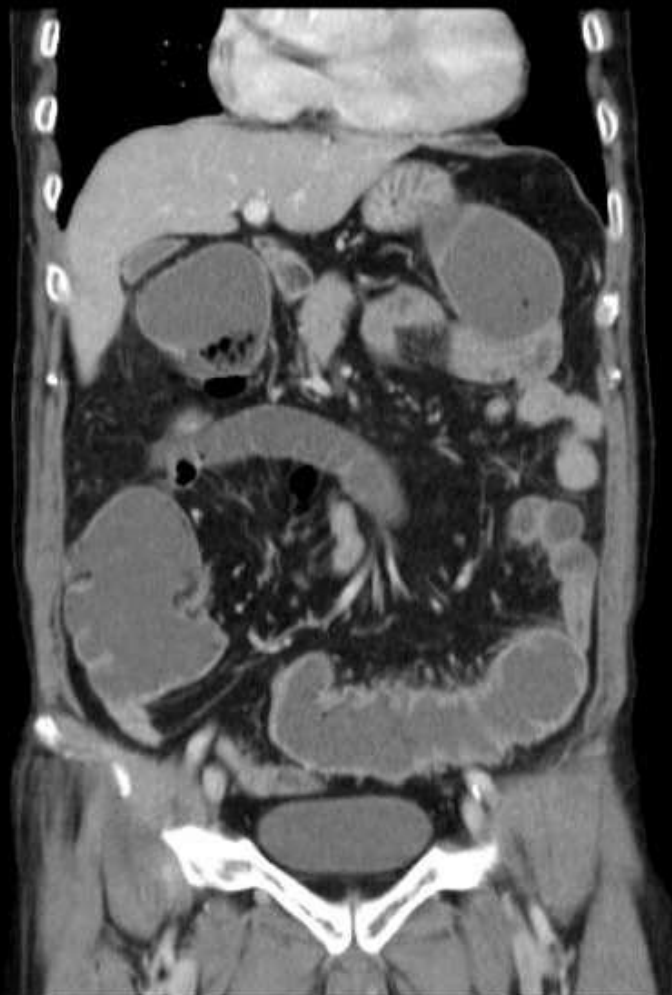
Diagnosis

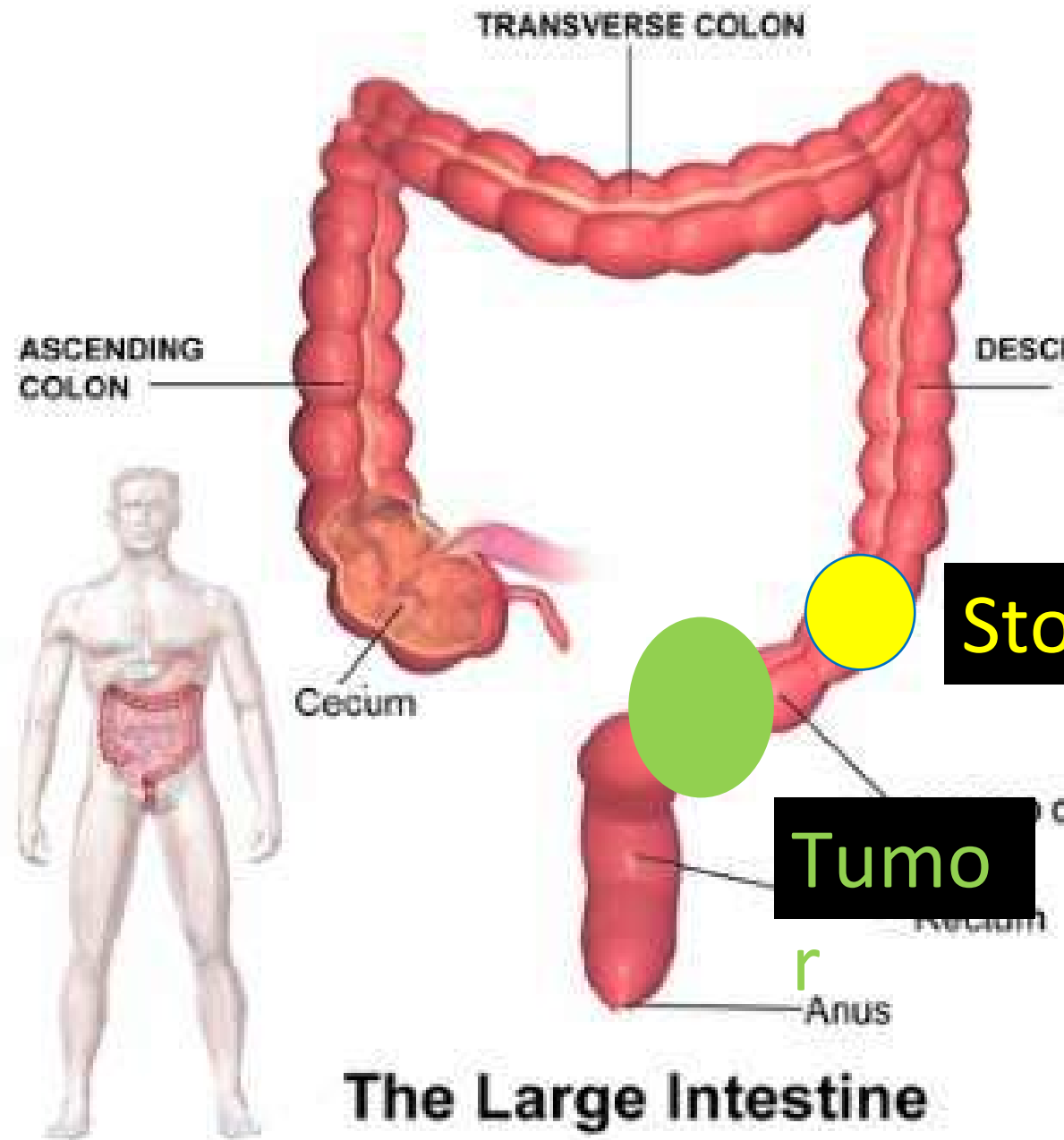
Sigmoid colon adenocarcinoma with total obstruction

Extremely
distended !!



2017/12/02





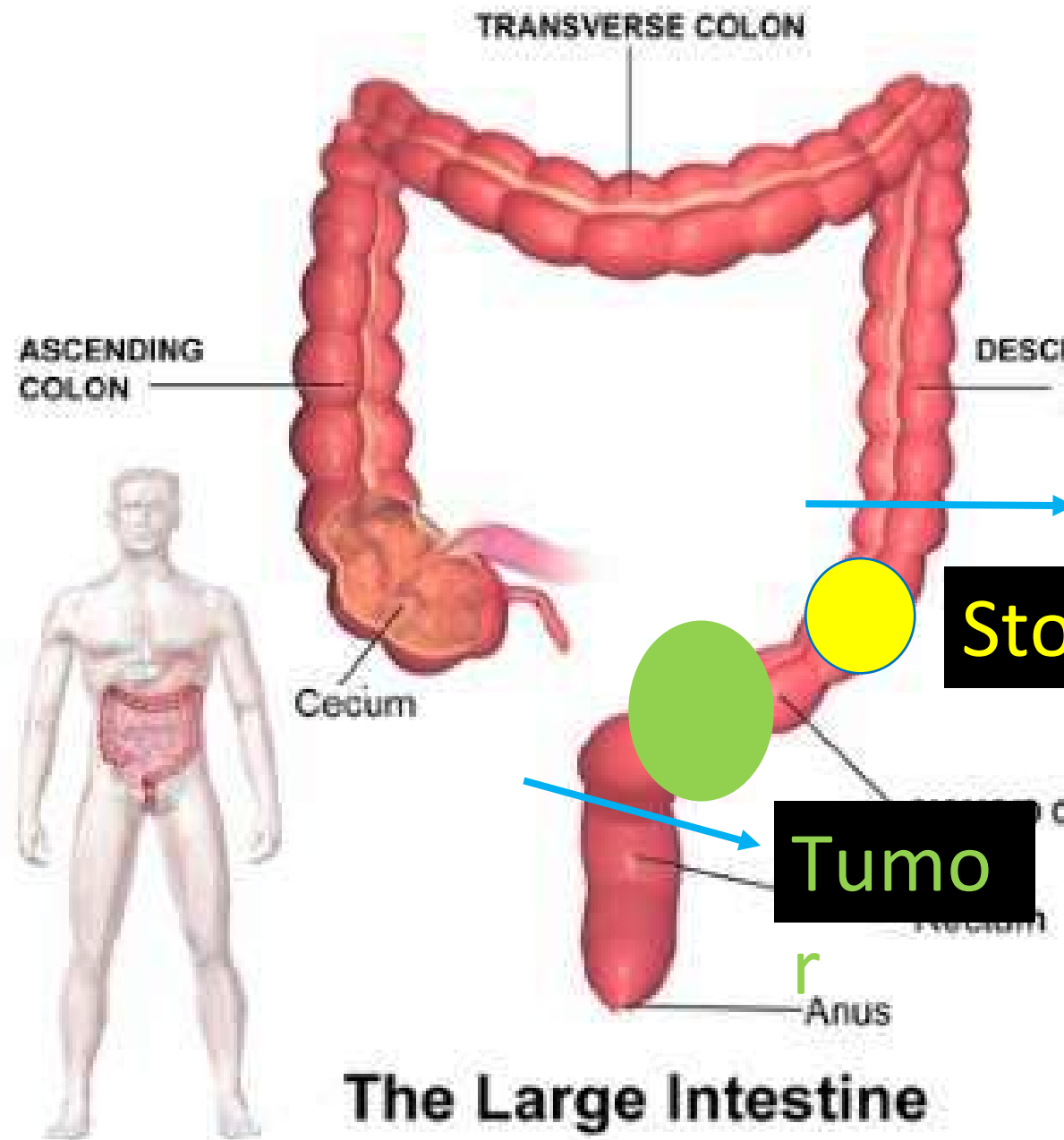
Laparoscopic sigmoid colectomy + small bowel segmental resection + S-loop colostoma take down

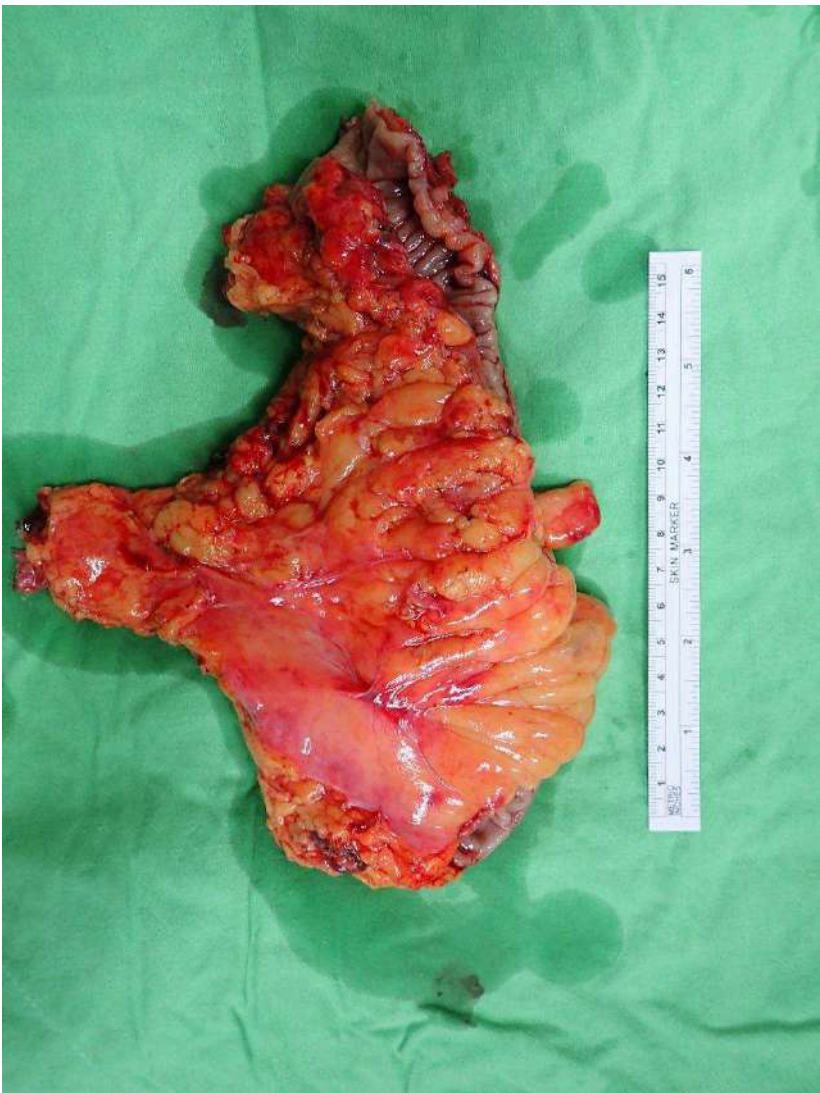
2017-12-14

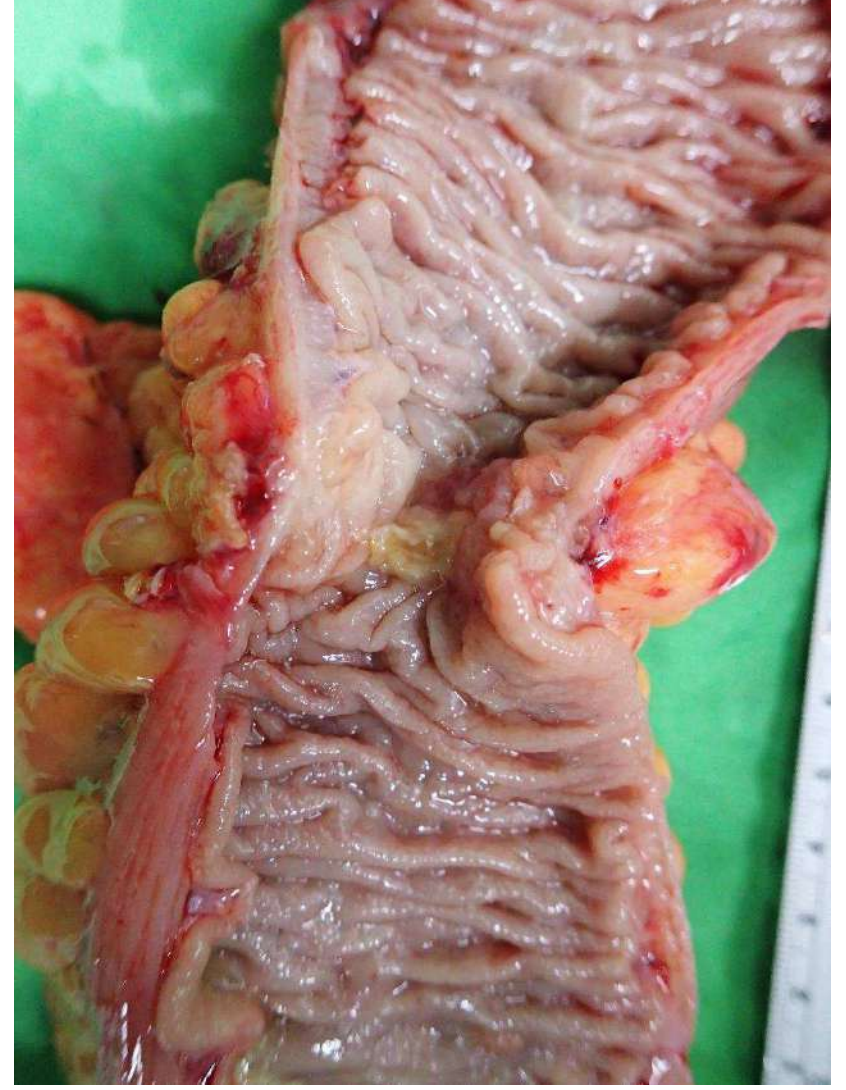
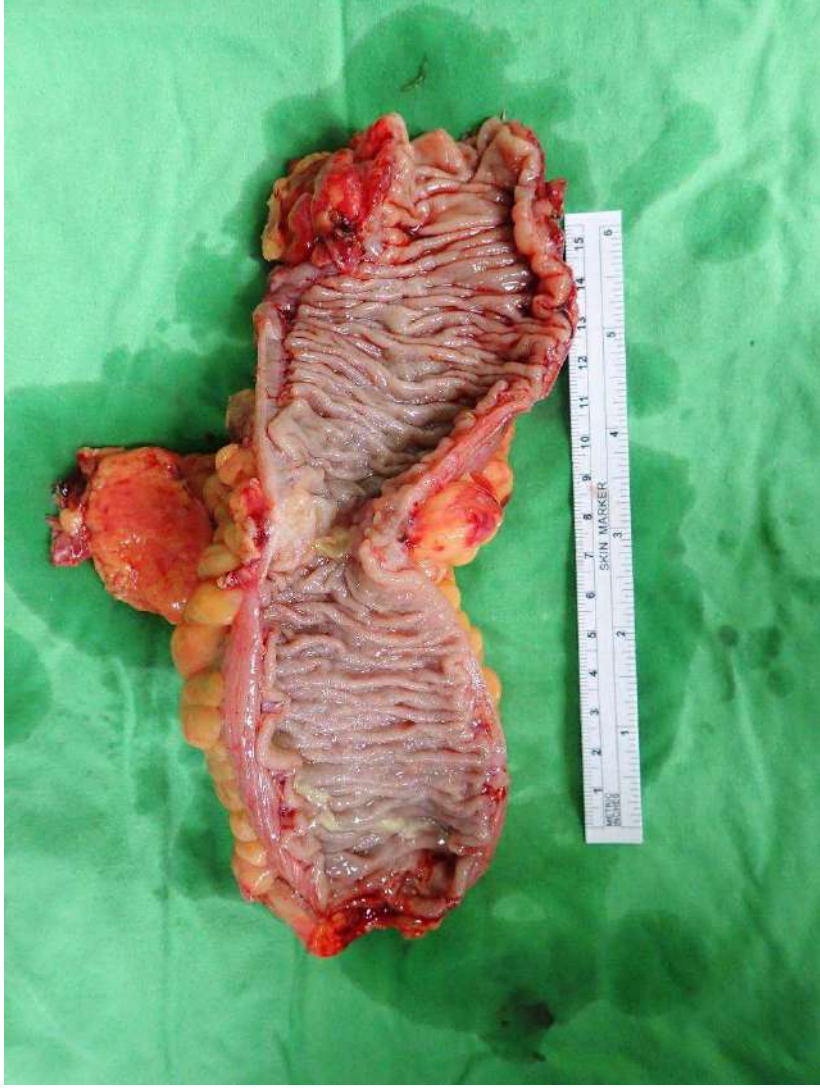
2nd operation

Diagnosis

*Sigmoid colon adenocarcinoma with total obstruction s/p S-loop
colostomy*







Course after operation...

- Post-OP transfer to AICU
- 2017-12-15, **POD-1**
 - Transfer to general ward
- 2017-12-16, **POD-2**
 - Remove NG
- 2017-12-18, **POD-4**
 - Remove Foley
 - Sip water

Course after operation...

- 2017-12-19, **POD-5**
 - Remove anal tube
- 2017-12-20, **POD-6**
 - On clear liquid diet
- 2017-12-21, **POD-7**
 - On liquid diet
- 2017-12-22, **POD-8**
 - On soft diet
- 2017-12-26, **POD-12**
 - Remove J-P drain
 - Discharge and follow up at OPD

Pathological report

- PATHOLOGIC DIAGNOSIS

- Intestine, large, sigmoid colon, sigmoid colectomy.
 - Adenocarcinoma, well differentiated, invading subserosa, pT3N0
- Surgical margin, bilateral and radial, sigmoid colectomy.
 - Free of tumor
- Intestine, small, segmental resection.
 - Free of tumor
- Lymph node, regional, dissection.
 - Free of metastasis (0/10)
- Soft tissue, labeled as "IMA LN", dissection.
 - Free of tumor

- Final stage **pT3N0M0**

Case presentation

陳O福

0499-84X

- 64 y/o
- Admission on 2017-09-05
- Discharge on 2017-09-28
- Past history
 - Medical history
 - HTN(+), type II DM(-)
 - Surgical history
 - s/p left inguinal herniorrhaphy
- Alcohol(-), Betel nut(-), Cigarette(-)

S-loop colostomy + right inguinal herniorrhaphy

2017-09-08

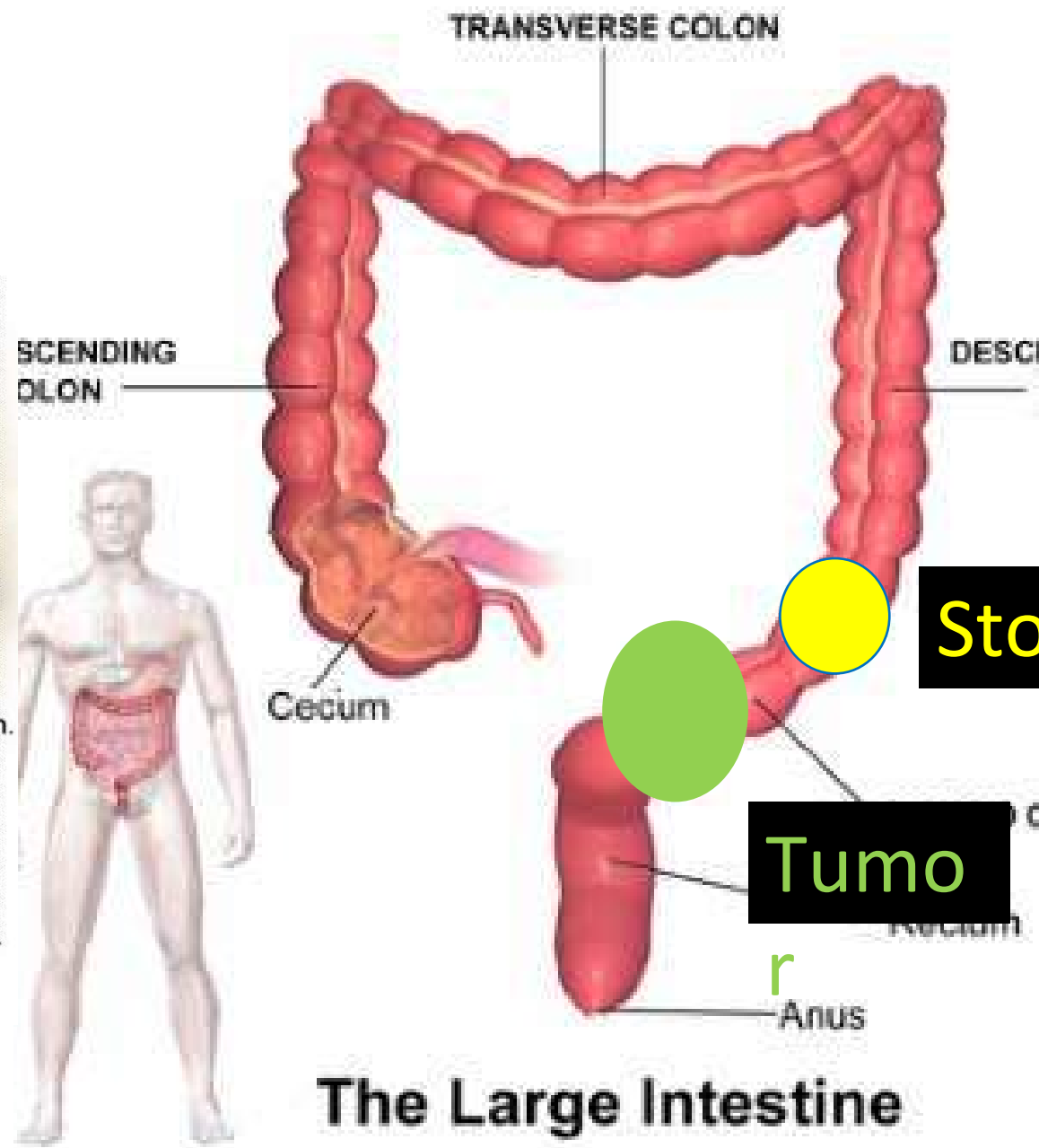
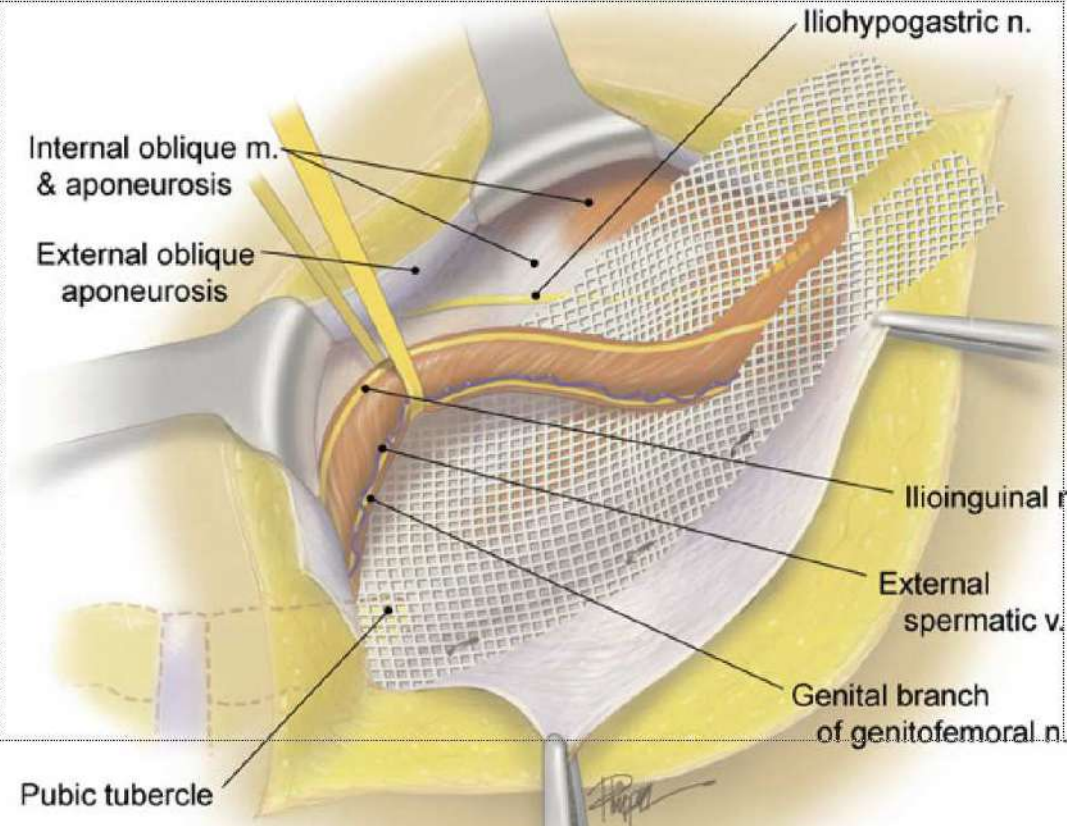
1st operation

Diagnosis

Sigmoid colon adenocarcinoma with total obstruction + right inguinal hernia

Extremely
distended !!





The Large Intestine

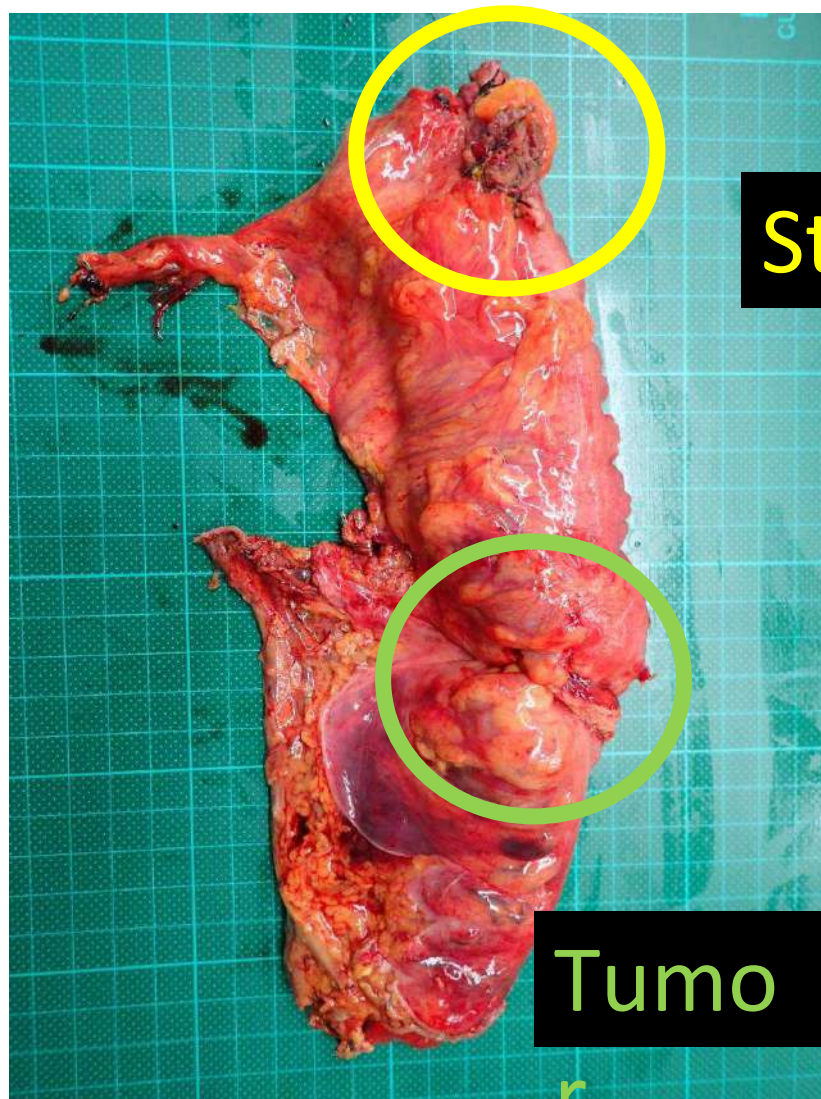
Laparoscopic sigmoid colectomy + S-loop colostoma take down

2017-09-18

2nd operation

Diagnosis

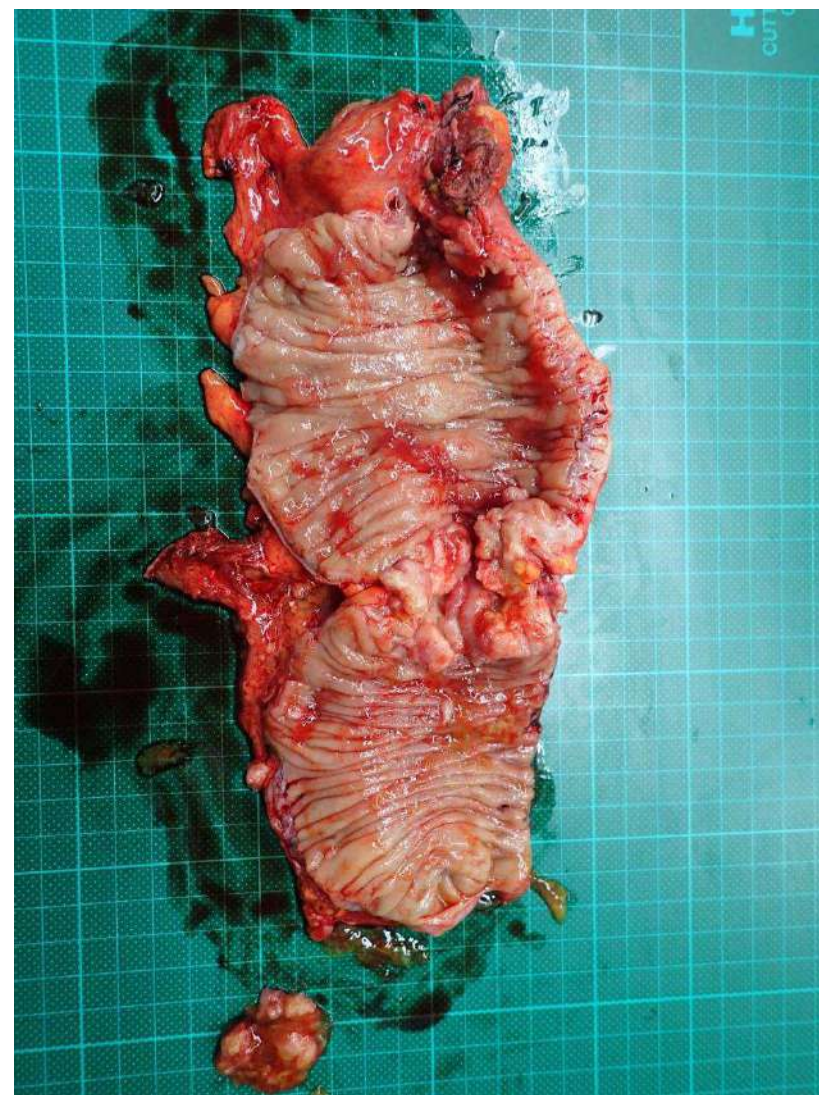
Sigmoid colon adenocarcinoma with total obstruction s/p S-loop colostomy

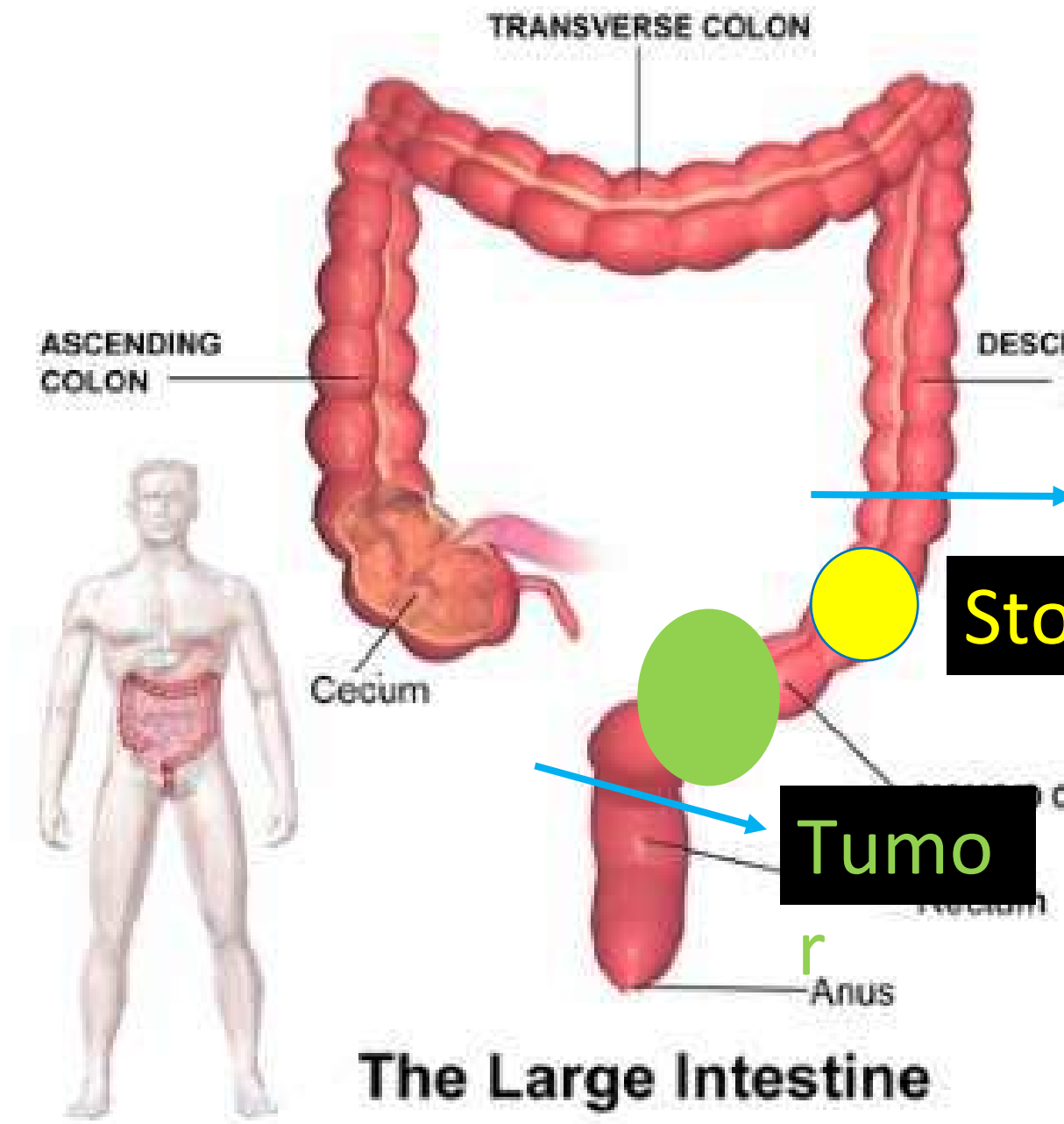


Stoma

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Course after operation...

- 2017-09-21, **POD-3**
 - Remove NG tube
 - Remove Foley
- 2017-09-22, **POD-4**
 - Sip water
- 2017-09-23, **POD-5**
 - Remove anal tube
 - On clear liquid diet
- 2017-09-24, **POD-6**
 - On liquid diet
- 2017-09-25, **POD-7**
 - On soft diet

Pathological report

- PATHOLOGIC DIAGNOSIS

- Intestine, S-colon, sigmoid colectomy
 - Adenocarcinoma, G2, moderately differentiated, invaded into subserosa
- Surgical margin, bilateral and CRM
 - Free of malignancy
- Lymph nodes, regional, dissection
 - Metastatic adenocarcinoma (5/20)

- Final stage **pT3N2aM0**

Course after operation...

- 2017-09-26, **POD-8**
 - OP: Left IV port-A implant
- 2017-09-28, **POD-10**
 - Remove J-P drain
 - Discharge and follow up at OPD

Summary

- 為何需要stoma?
- 3 stages treatment
 - 最基本的觀念
- 2 stages treatment
 - Open approach
- Alternative 2 stages treatment
 - Laparoscopic approach

Thanks for your attention!

