

Pouch surgery a surgeons view



We wanted the army guy, not the
gastroenterologist.



Ileal pouches

- Ulcerative colitis
- Familial adenomatous polyposis
- *Crohn's disease*
- *Chronic constipation*

Indications for surgery in UC

- **Acute fulminant colitis**
- **Chronic symptoms refractory to medical treatment**
- **Dysplasia**
- **Cancer**
- ***PSC liver transplantation***

Surgery for ulcerative colitis

- Total colectomy and ileostomy
- *Subtotal and ileorectal anastomosis*
- Proctocolectomy with end ileostomy
- Kock continent ileostomy
- Ileal pouch-anal anastomosis

Acute ulcerative colitis

- Poorly patients
- Low Hb, septic
- Low albumin
- High dose steroids



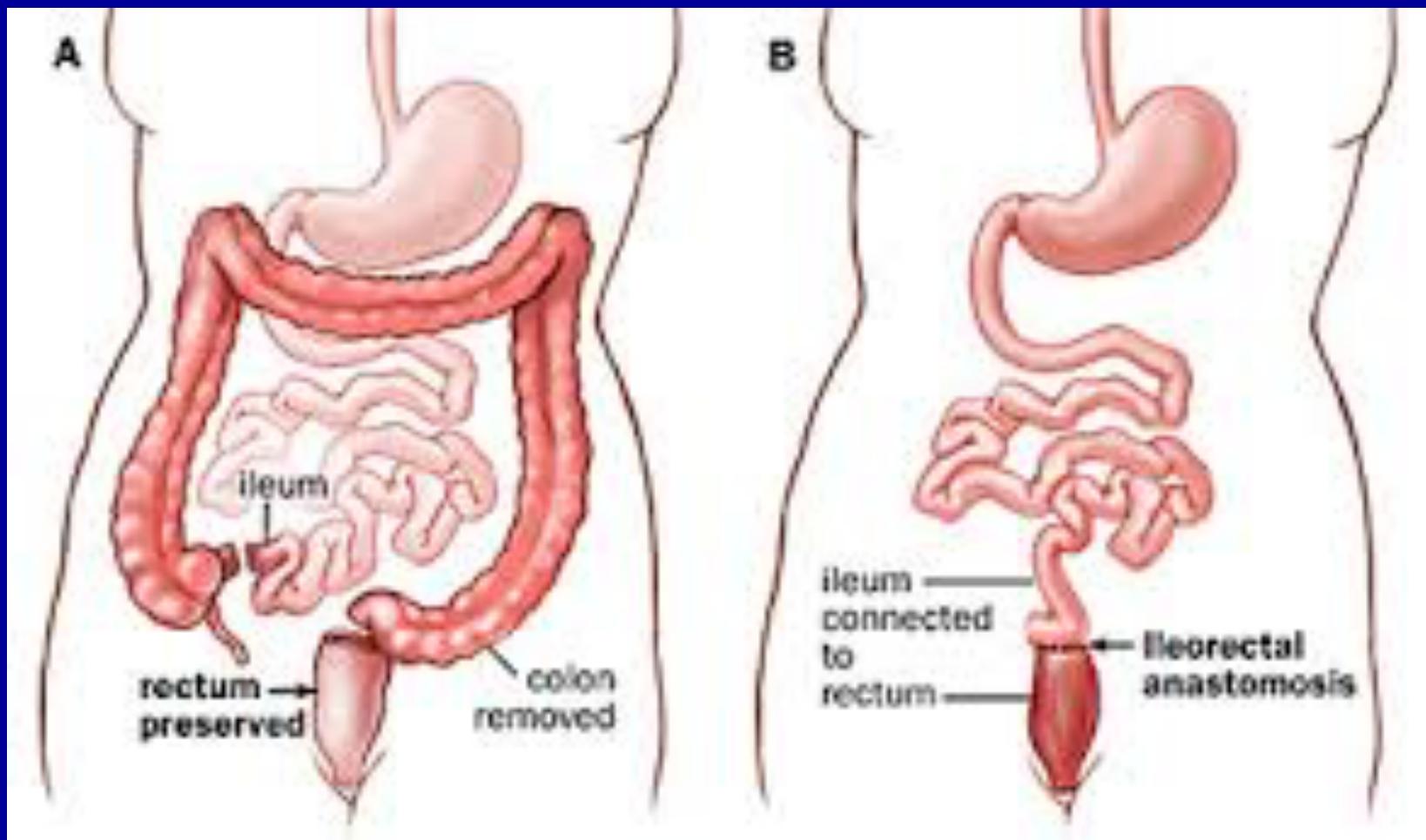
Acute colitis

- Subtotal colectomy
- Laparoscopic *or open*
- Long rectal stump



No place for panproctocolectomy or
restorative proctocolectomy in the acute setting

Subtotal colectomy

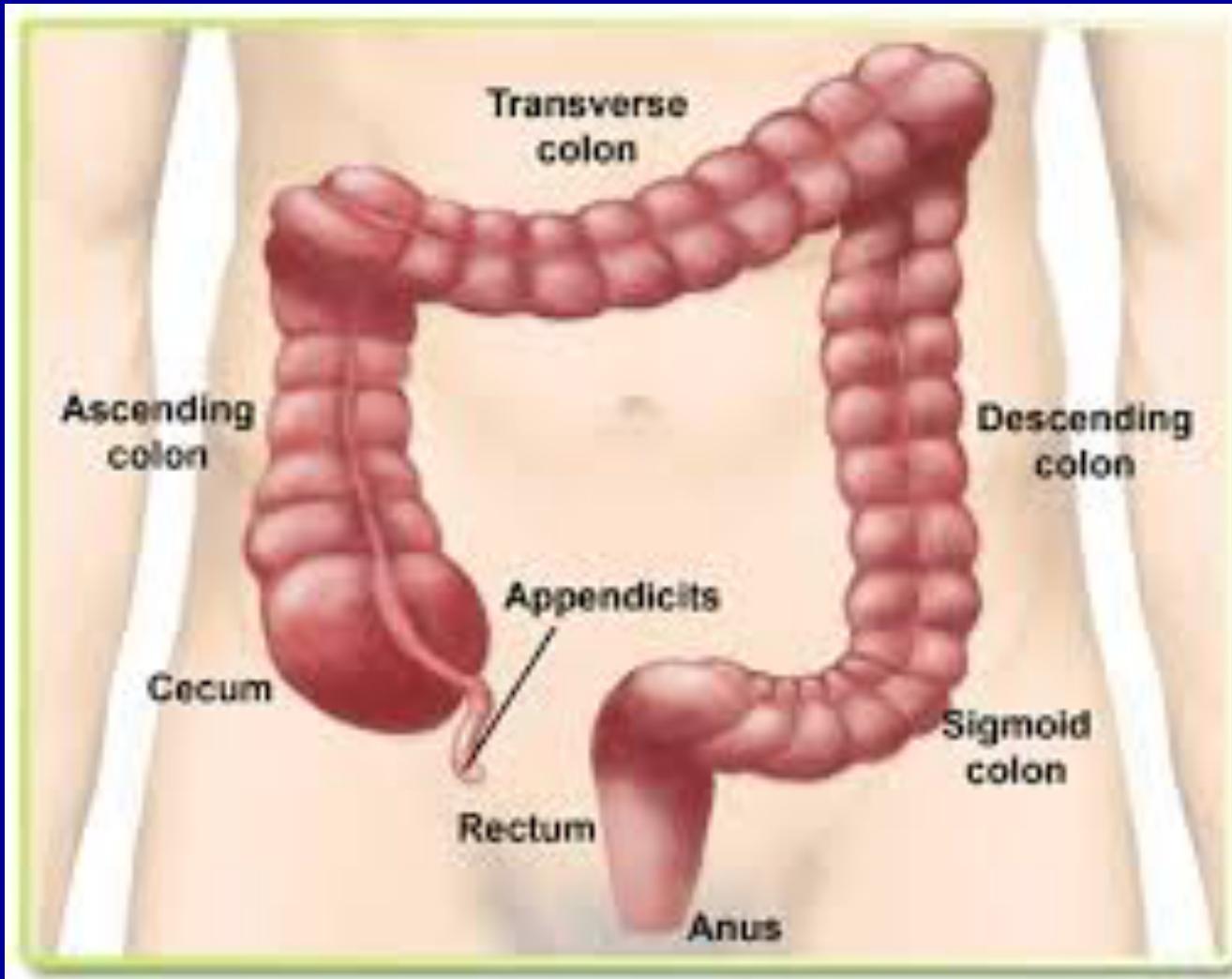


Proctocolectomy with end ileostomy



- Eradicates disease
- Perineal wound
- Permanent ileostomy

Proctocolectomy



Ileal pouch-anal anastomosis

Straight ileoanal anastomosis

Nissen 1933

Best 1952

Ravitch & Sabiston 1955

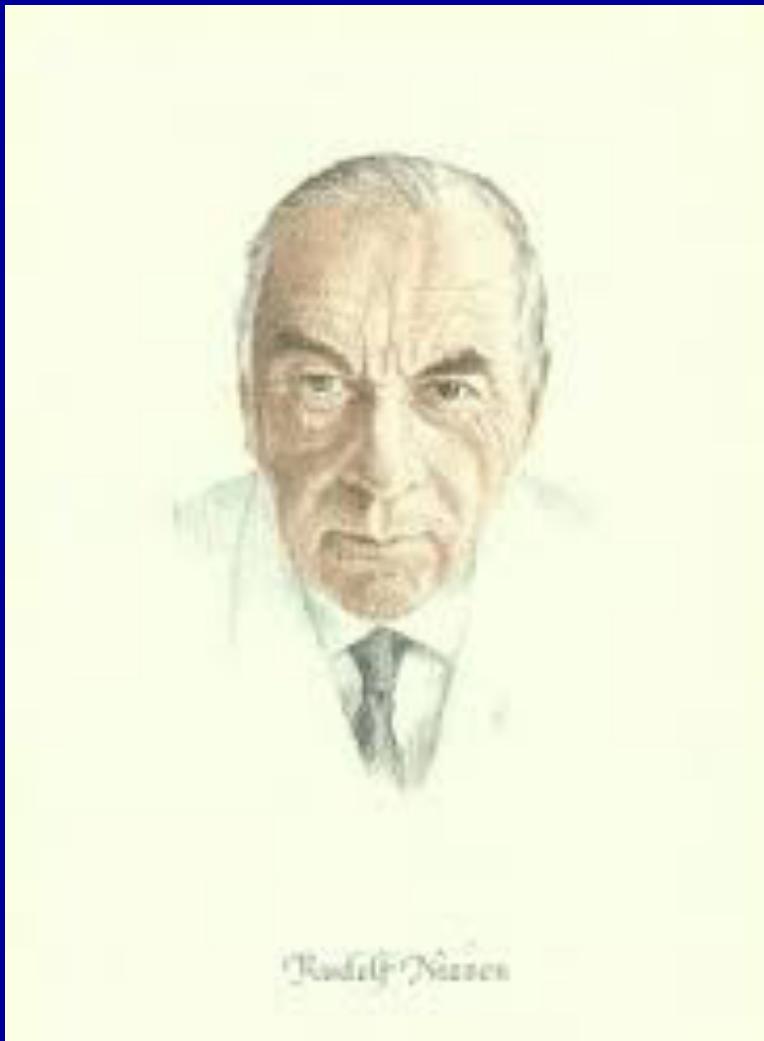
Continent ileostomy

Koch 1969

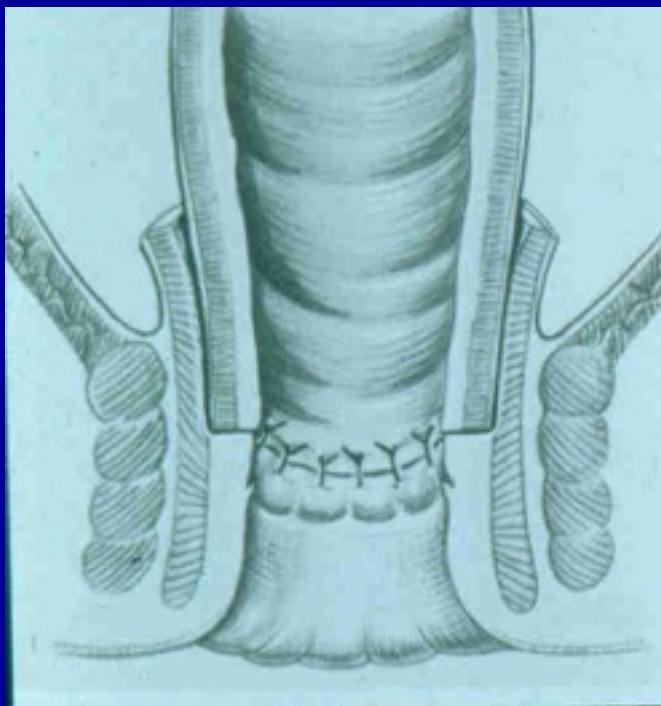
Park & Nicholls 1978

Ileal pouch-anal anastomosis

Rudolf Nissen Berlin Chirurgical Society 1933



Straight ileo-anal anastomosis



- Frequency of bowel movements 8-15/24h
- Faecal soiling

Ileal pouch-anal anastomosis

Straight ileoanal anastomosis

Nissen 1933

Best 1952

Ravitch & Sabiston 1955

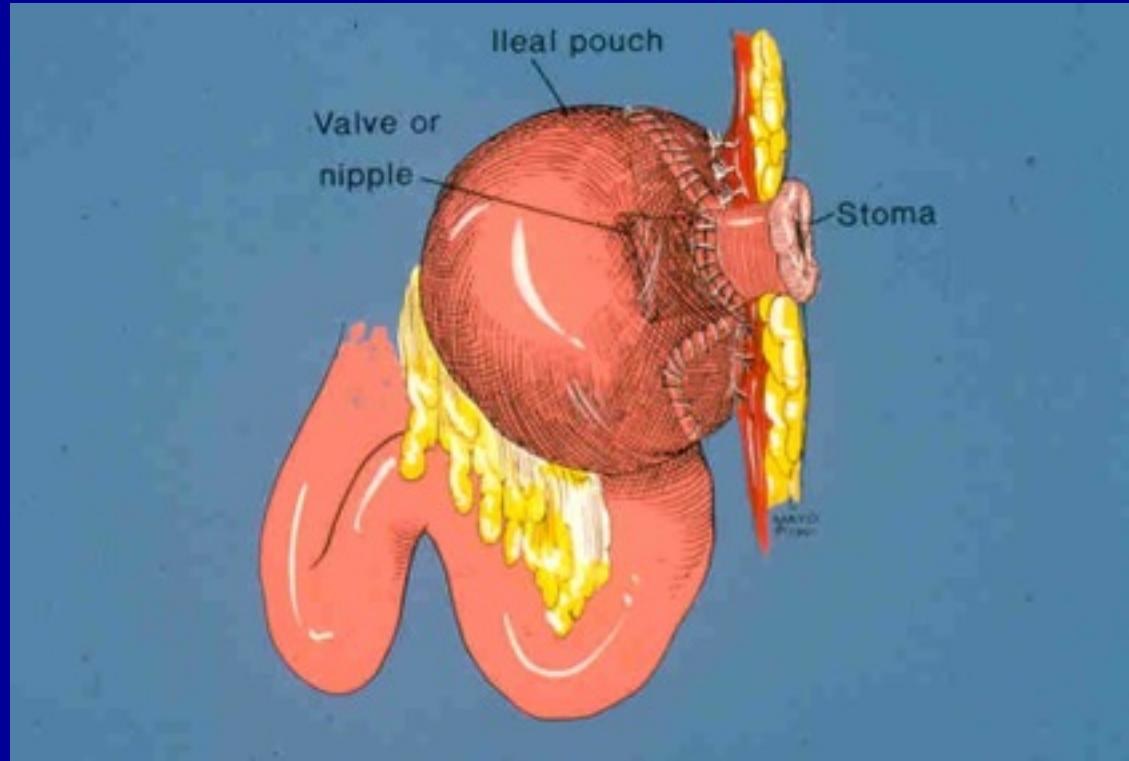
Continent ileostomy

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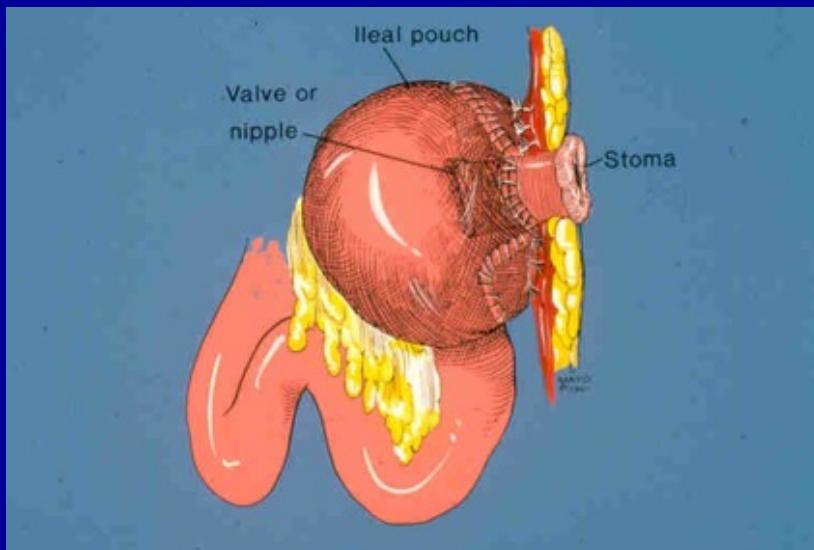
Ileal pouch-anal anastomosis

Kock pouch



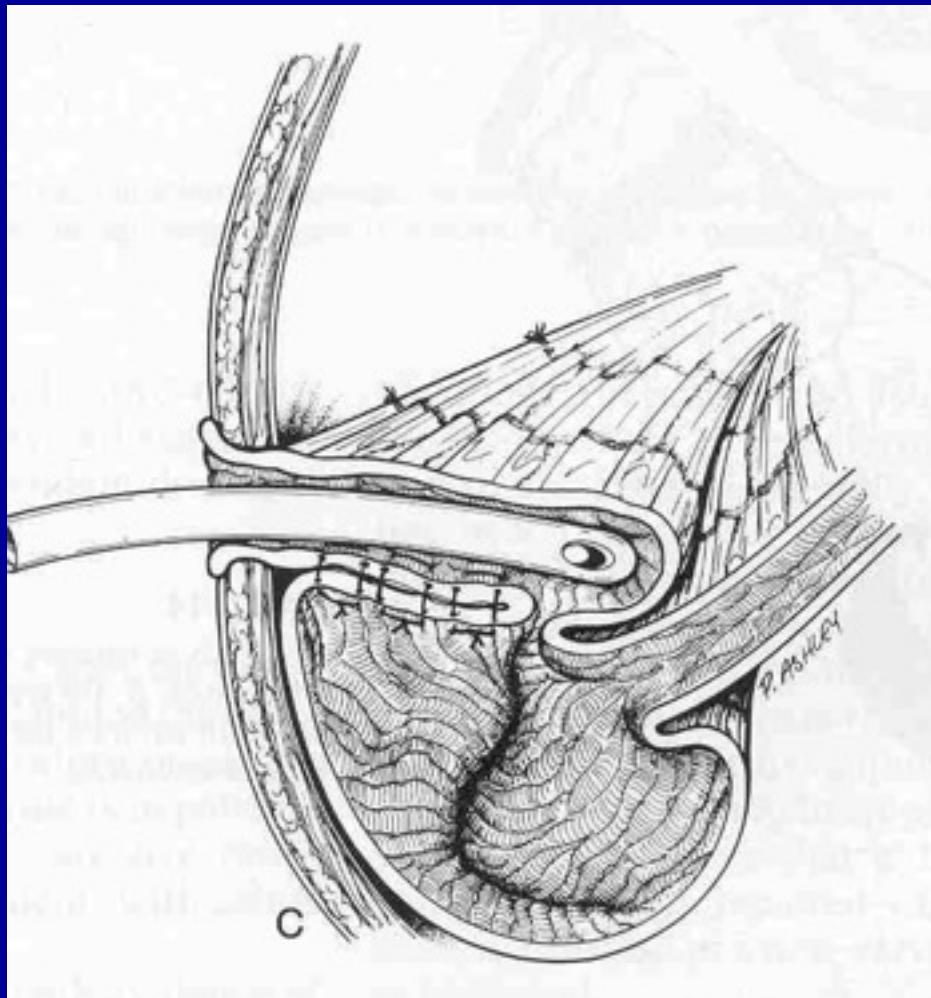
Intra-abdominal “Reservoir” in patients with permanent ileostomy
Preliminary observations on a procedure resulting in fecal
“Continence” in five ileostomy patients
Nils G. Kock Arch Surg 1969

Kock continent ileostomy problems



- Stomal stenosis
- Unfolding of nipple valve
- High failure rate

Valve angulation in a Kock reservoir



Food concretions within a Kock reservoir



Ileal pouch-anal anastomosis

Straight ileoanal anastomosis

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Ileal pouch-anal anastomosis

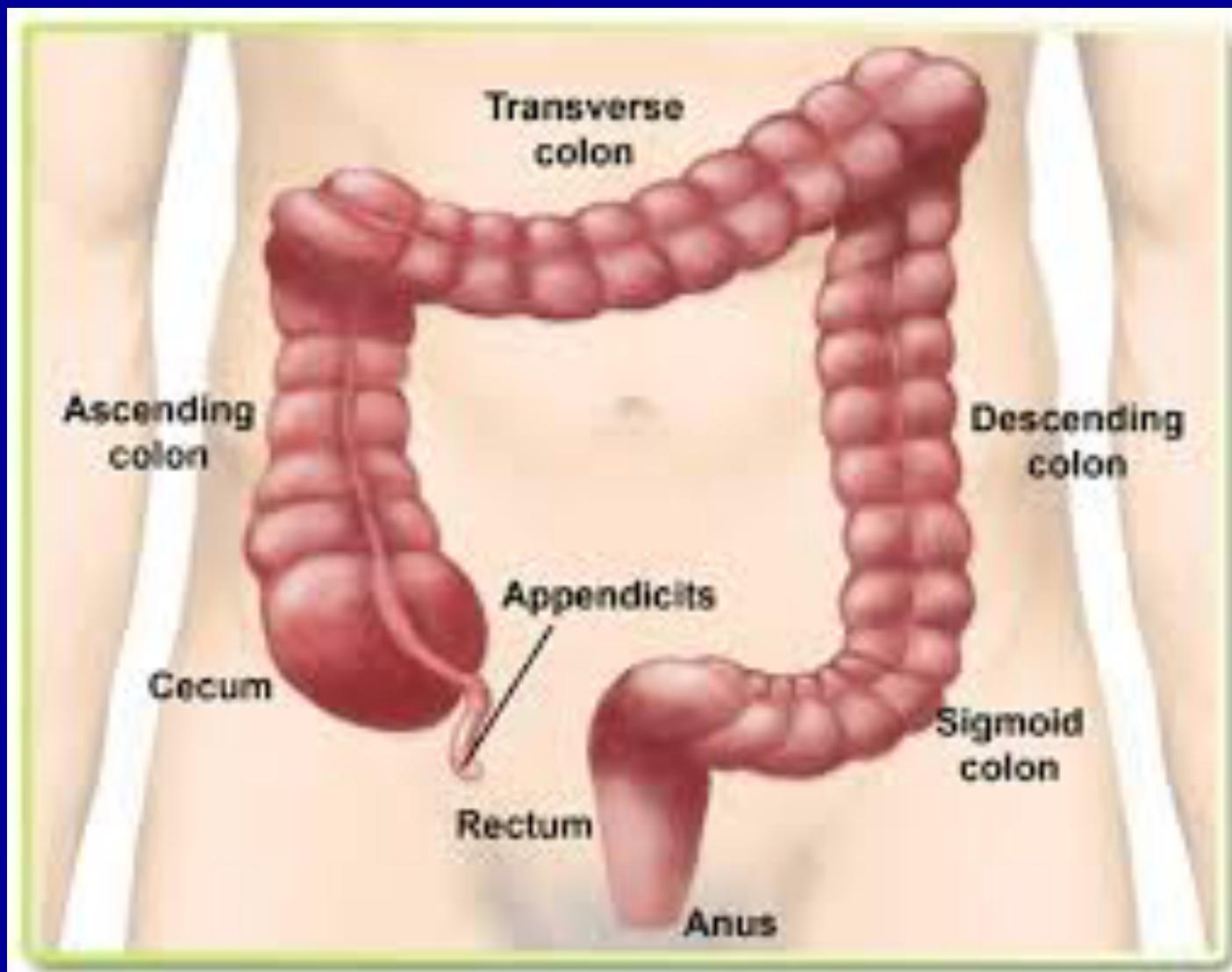
Parks & Nicholls 1978



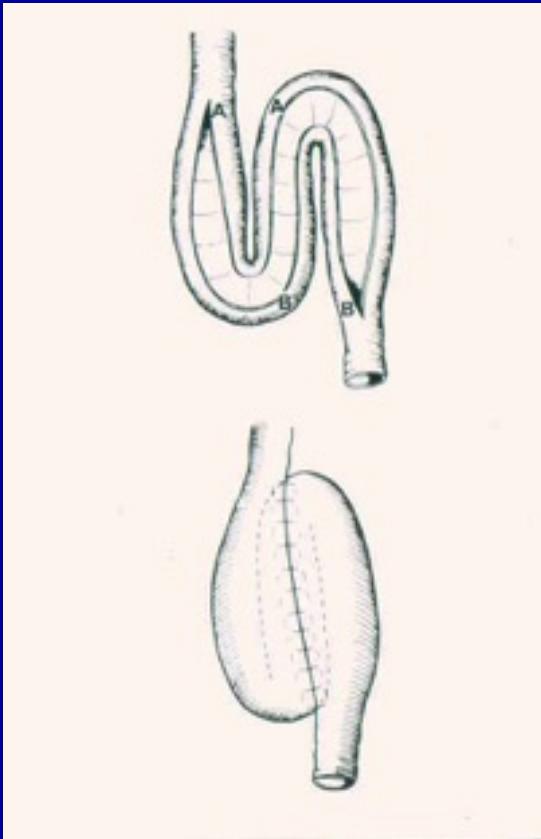
Br Med J. 1978 Jul 8; 2(6130): 85–88.

Proctocolectomy without ileostomy for ulcerative colitis.

A G Parks and R J Nicholls

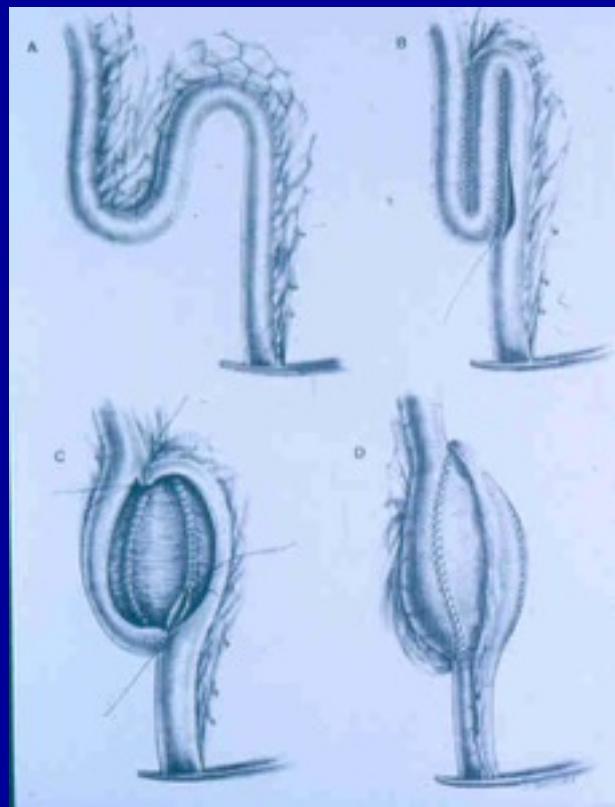


S pouch



- Long efferent spout
- Self intubation in up to 50% of patients

Difficult reach



Ileal J pouch

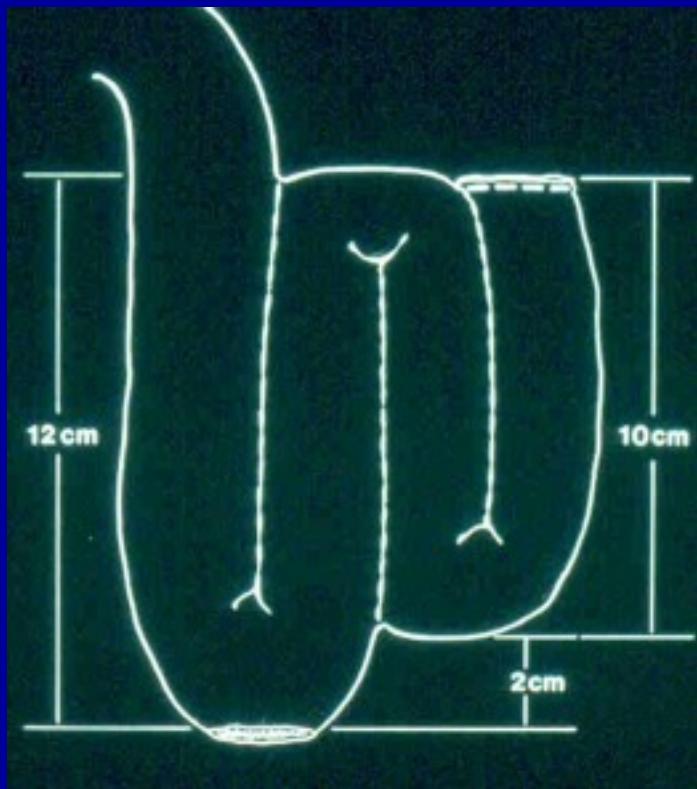
- Dr Utsonomiya (Japan)



- 2 limbs of ileum
- Quick and simple
- Most popular

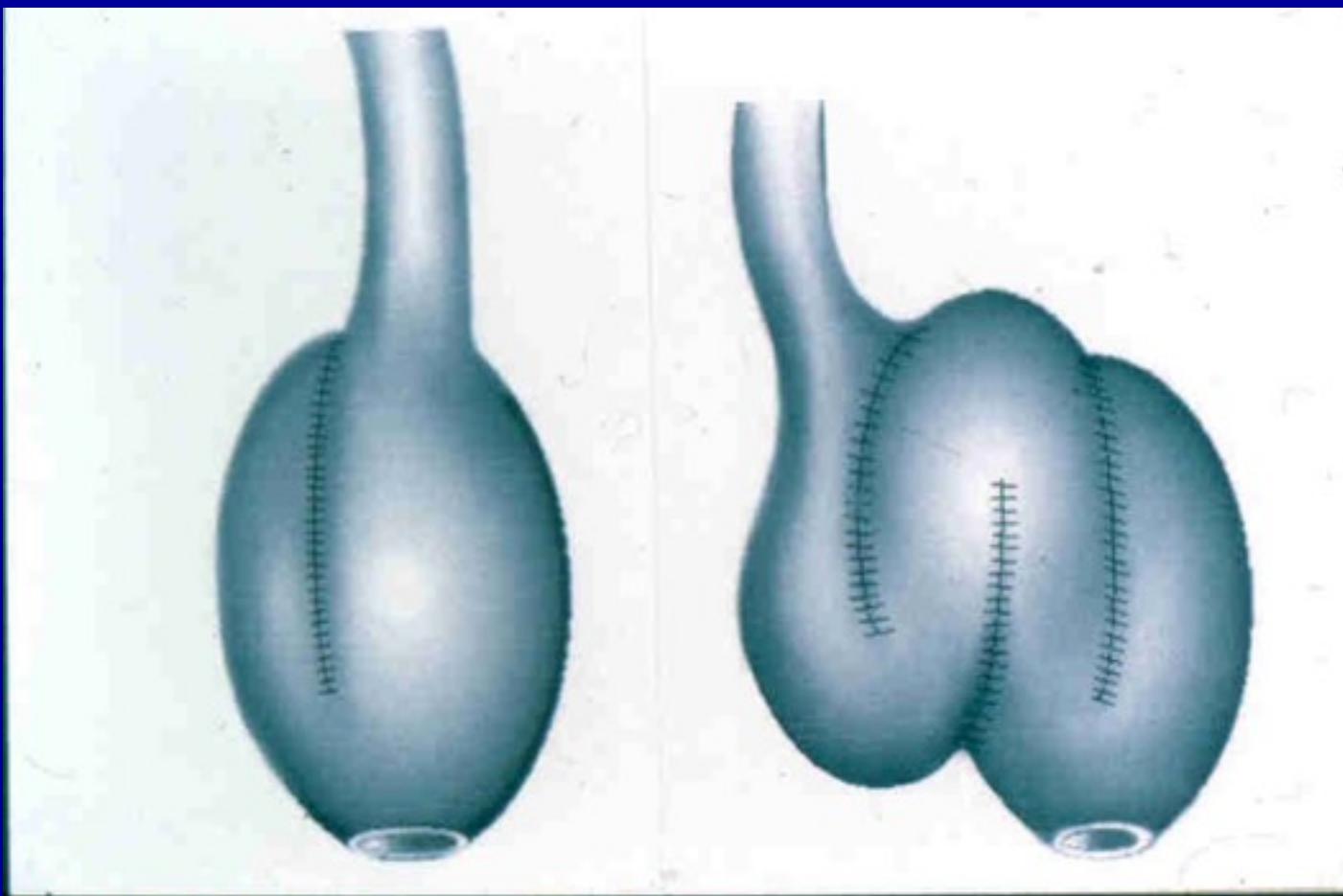


W pouch



- Capacious pouch
- Hand sewn
- Good function

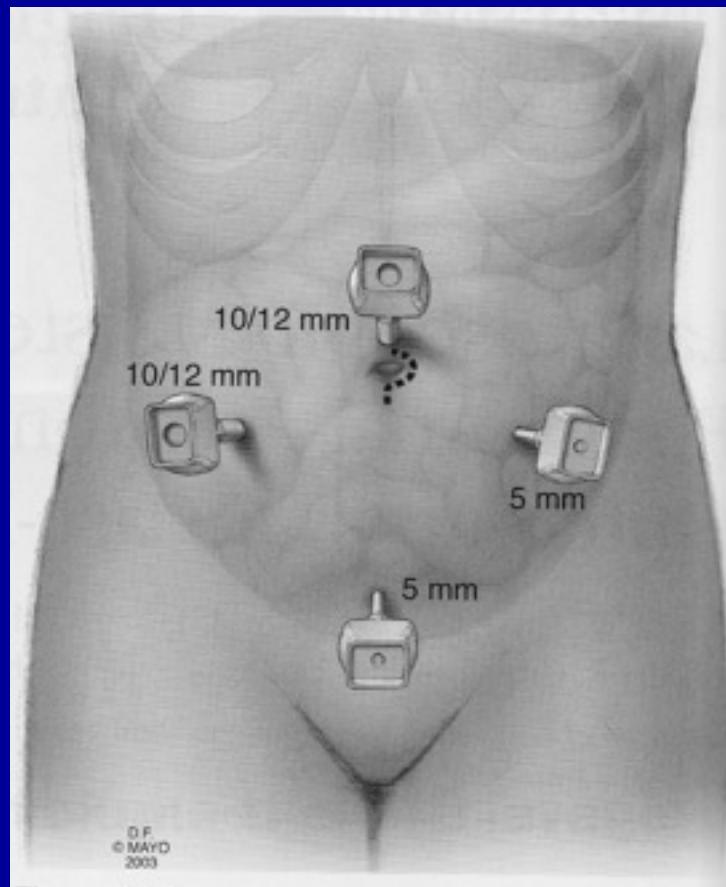
J or W pouch?



Open IPAA vs Lap IPAA



Laparoscopic Ileal pouch procedure



Advantages and disadvantages of the laparoscopic approach

- Smaller wounds
 - Reduced blood loss
 - Less pain
 - Faster recovery
 - Hernias
 - Adhesions
 - Fertility
-
- Longer operation
 - Learning curve
 - ‘Off camera’ injury
 - Long term outcome data

Questionmarks

- Low dissection
- Multiple staple lines
- Pouch orientation

Loop ileostomy or not?

- Reduce serious consequence of leak
- But
 - Difficult to form
 - Often poor spout
 - High output
 - Difficult closure

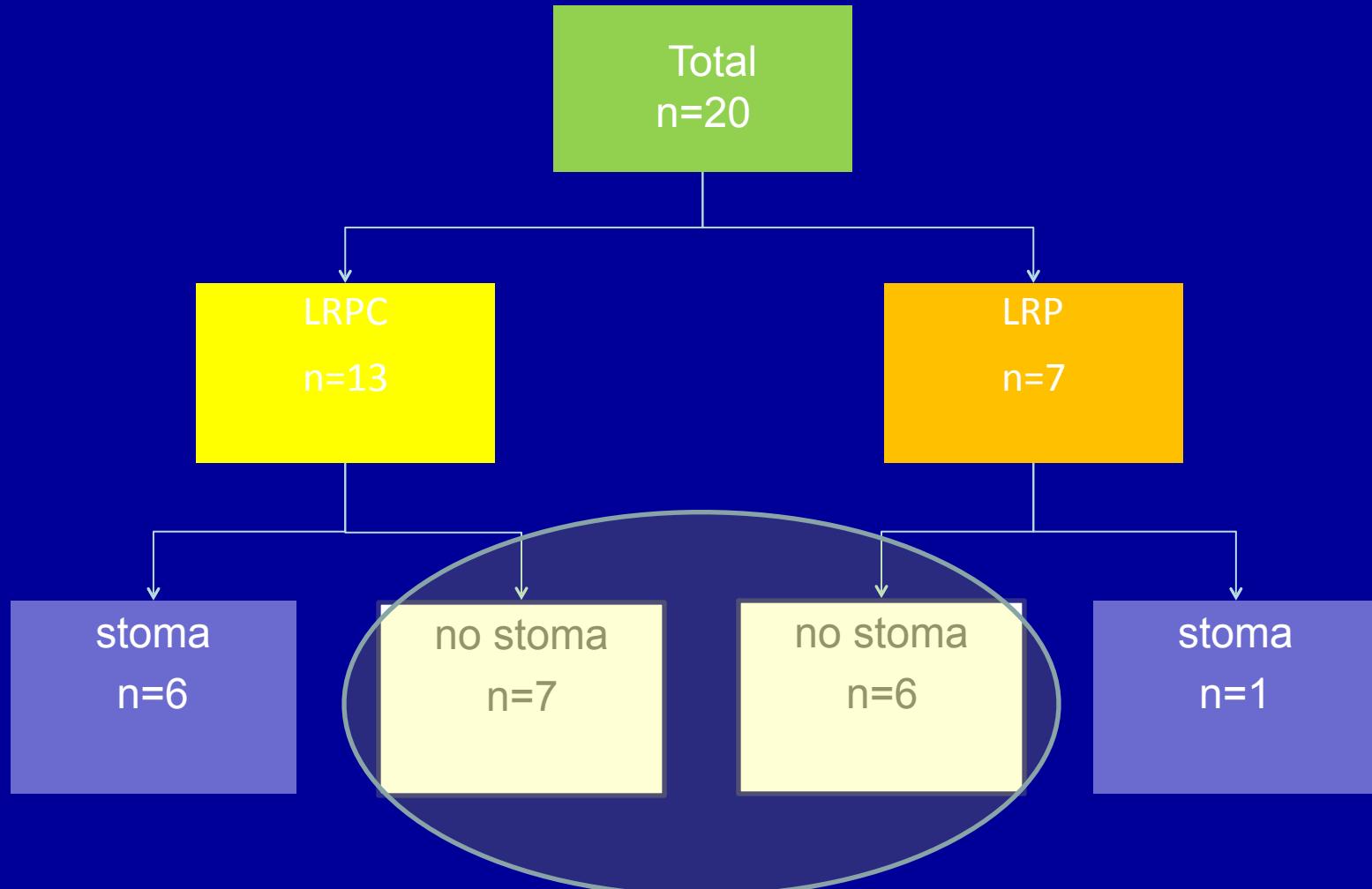


No loop ileostomy

Criteria

- No steroids
- Good pouch
- No tension
- -ve leak test

Results UHB 2005-09



Results UHB 2005-09

- 20 patients (M:F = 7:13)
- Median age 30 (16-67) years
- Urgency of surgery
 - Elective 17
 - Emergency 3
- Conversion rate 2/20(10%)

Intra-operative data (n=20)

Median operating time	minutes (range)
Overall	240 (150 - 390)
LRPC	270
LRP	200
Conversion (rate)	1 (5%)
Intra-operative complications	none
Median blood loss in mls (range)	100 (10-250)

Length of stay

	overall	with stoma	without stoma
LRPC (n=13)	13 (5-30)	11 (5-15) (n=6)	12 (6-30) (n=7)
LRP (n=7)	7 (3-14)	7 (n=1)	9.5 (3-14) (n=6)

Functional Outcomes - QEH

- **Pouch Frequency / day of 16 patients**
average 6
range 1-10
median 5
- **Pouch Frequency / night of 7 patients**
average 3
range 0-5
median 2
- **incontinence** 0
- **urgency** 0
- **constipation** 1

Fertility and ileal pouch surgery

- Systemic review and meta-analysis
- Infertility-achieving pregnancy in 12 months of attempting conception
- Threefold increase in infertility after IPAA
- Increase from 15% to 48% in women post IPAA

Waljee et al, Gut, 2007; 56: 735

Fertility after laparoscopic IAPP

- 21 women laparoscoped at ileostomy closure
 - 15 (71%) no adnexal adhesions**
 - 5 filmy adhesions 1/3 one adnexa**
 - 1 filmy adhesions 1/3-2/3 one adnexa**
 - 0 patients with adhesions to both**

Indar et al, Surg Endosc 2008; 23: 174-7.

Incisional herniae

- 155 open 165 lap
- IH at 5 years
- 19 (13%) lap vs 53 (33%) open P<0.001
Laurent et al, Br J Surg 2008; 95: 903-8.
- CLASSIC trial
- Trends towards reduced IH and AIO in lap group
Taylor et al, Br J Surg, 2010; 97: 70-78.
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Adhesions after IPAA

- 34 patients laparoscopic evaluation at ileostomy closure
- 23 (68%) no abdominal wall adhesions
- 11 filmy avascular adhesions
- 0 dense adhesions

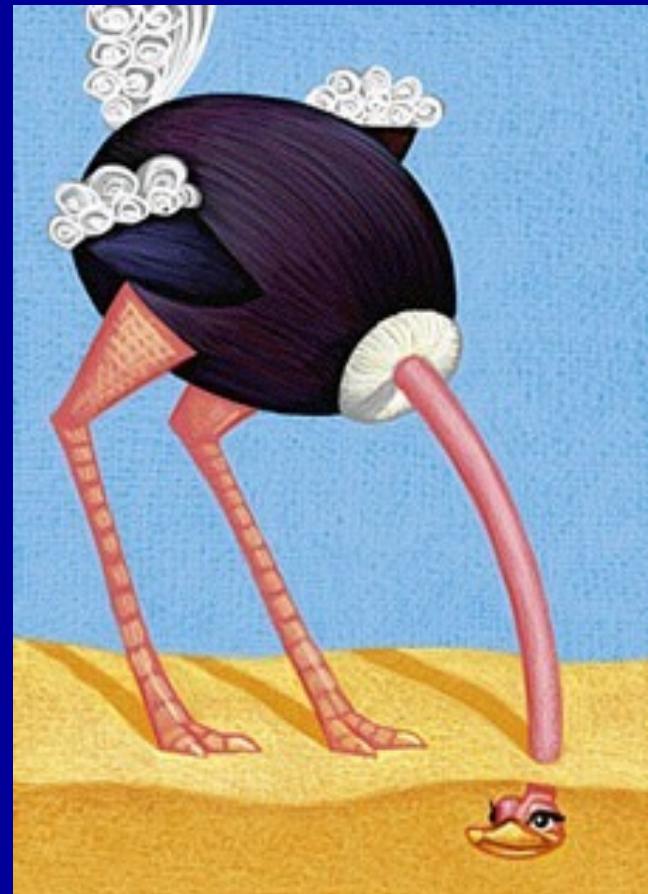
Indar et al, Surg Endosc 2008; 23: 174-7.

Total intracorporeal IPAA



Surgical approaches

- *Open surgery*
- Laparoscopic
 - hand assisted
- Robotic surgery
- Trans-anal surgery



Robotic surgery

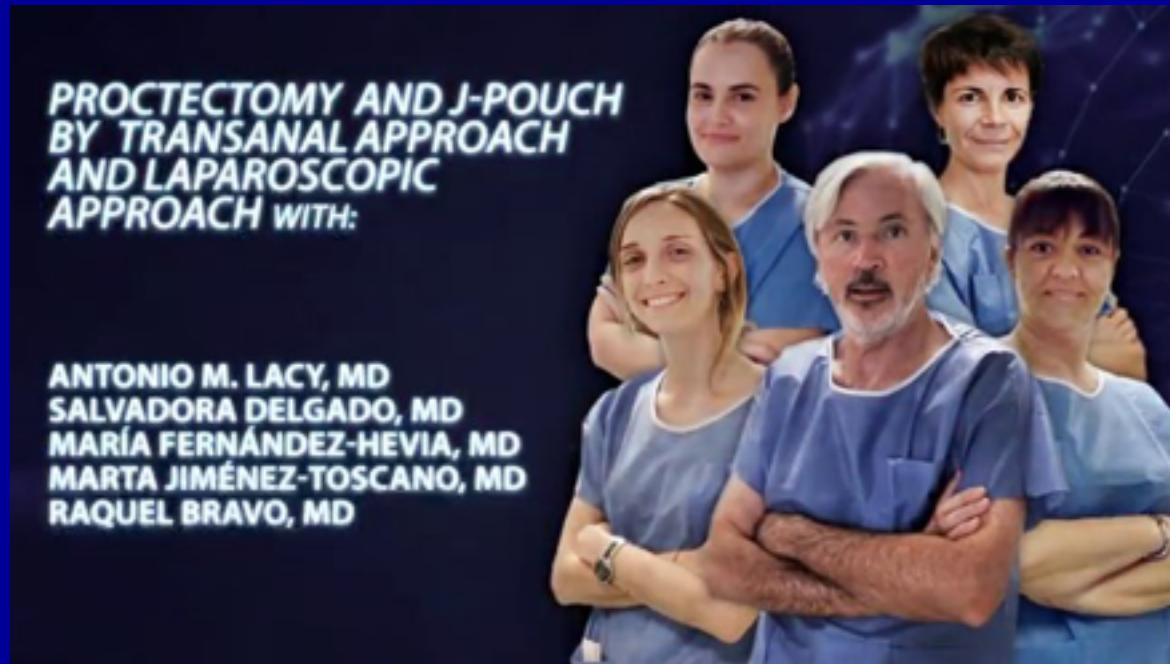


Robotic surgery - endowrist



Trans-anal surgery

- Addresses access issues in a narrow pelvis
- New procedure
- Outcomes need evaluation



How do I decide?

Proctocolectomy & pouch
Laparoscopic approach

Proctectomy & pouch
Laparoscopic
Robotic
Transanal

Choose your hospital and surgeon

- Not a ‘common’ procedure
- Centers with ‘high’ volumes
- Surgeons who have high volumes



What should your surgeon tell you?

- Describe the operation
- Explain the risks
 - general and specific
- Discuss ileostomy
- Describe the functional outcomes
- Pouch failure & longer term complications

Information

- Colorectal nurse specialist
- Information leaflets DVDs
- Patient contact

Risks: general

- Cardiovascular
- Respiratory
- Thromboembolism



Risks: specific

- Bleeding
- Infection-wound
- Leaks
- Sepsis
- Nerves
- Fertility



Functional outcomes

- Frequency
day/night
- Urgency
- Continence



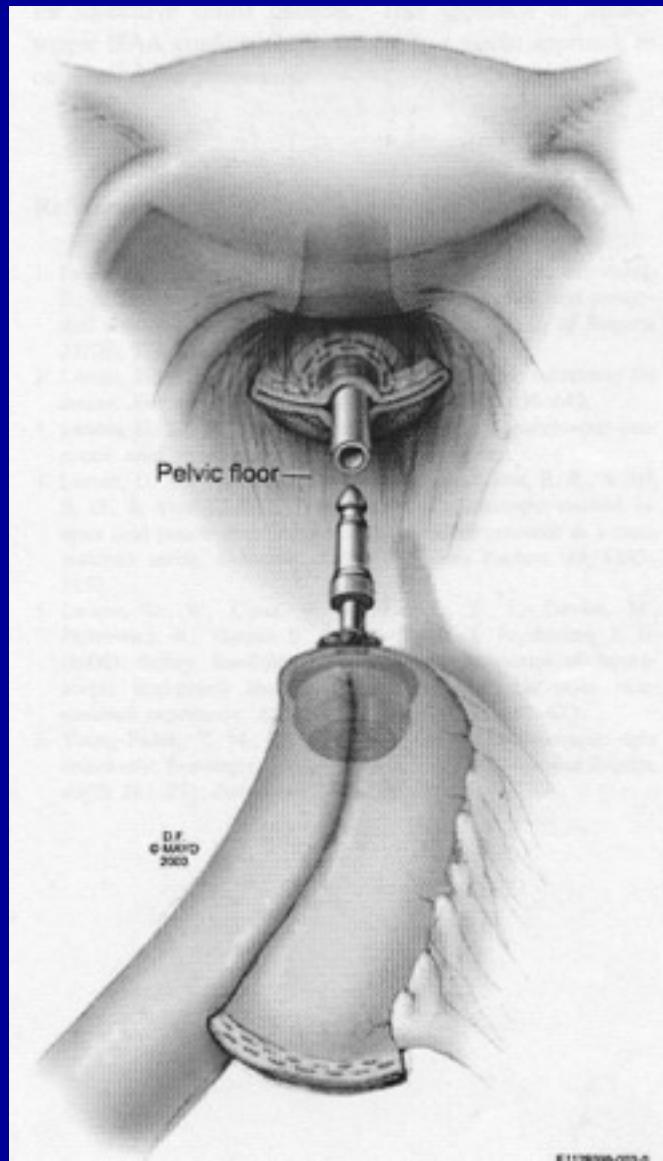
Longer term- outcomes

- pouchitis
- sepsis
- fistula
- Crohn's disease
- pouch failure

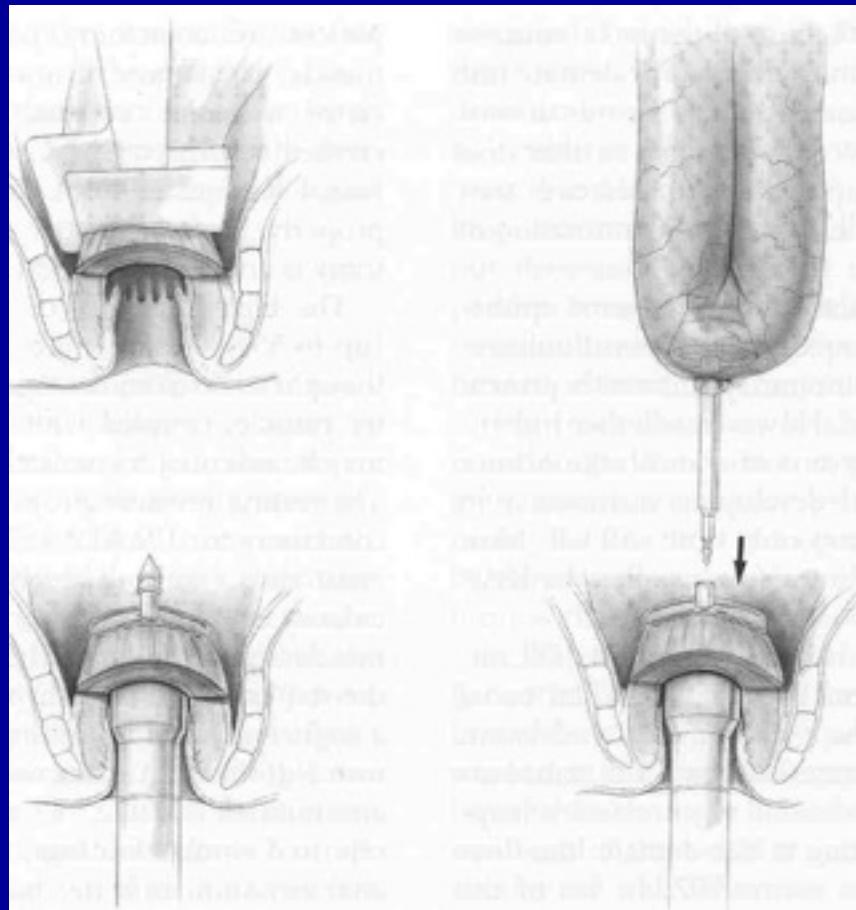




The ileal-pouch anal anastomosis



Double stapled IPAA - operative technique



Ileal pouch-anal anastomosis

