Itinerary

DAY 1

Date : 25th January 2022 (Tuesday)

Platform : Face to Face

Venue : Endoscopy Suite Seminar Room, Sultan Ahmad Shah Medical Centre @IIUM

TIME	EVENT
0830-0900H	Registration and Light Breakfast
0900-0920H	IntroductionofprogrambyOrganizingAdvisor: Assoc Prof. Dr. Mat Salleh Sarif Openingandofficiationby: Asst. Prof. Dr. Ahmad Faidzal Othman
0920-0940H	'Laparoscopic Training for General Surgeons' Assoc. Prof. Dr. Junaini bin Kasian
0940-1000H	Ergonomics in Laparoscopic Surgery Prof. Dr. Nasser Muhammad Amjad
1000-1020H	Introduction to Instruments and Set Up Br. Izzul Irfan bin Ahmad Nizam
1020-1100H	Tea Break
1100-1120H	Camera and Visualisation system KhaiUmmi Surgery (Karl Storz)
1120-1140H	Power Instrument and Vascular Sealing system Asst. Prof. Dr. Mohd Yusof Sainal

1140-1200H	Ports, Port Positioning and Access into Abdomen Assoc. Prof. Dr. Mat Salleh Sarif
1200-1220H	Pneumoperitoneum and its physiology Asst. Prof. Dr. Shahidah Che AlHadi
1220-1240H	Dealing with Difficult Cases Asst. Prof. Dr. Azrin Waheedy
1240-1400H	Lunch break
1400-1420H	Anastomosis in Laparoscopic Surgery Asst. Prof. Dr. Faisel S. A. Saad Elagili
1420-1515H	Practical
1515-1545H	Hi-Tea
1545-1700H	Practical

DAY 2

Date : 26th January 2022 (Wednesday)

Platform : Face to Face

Venue : Endoscopy Suite Seminar Room, Sultan Ahmad Shah Medical Centre @IIUM

TIME	EVENT
0830-0900H	Registration and Light Breakfast
0900-0920H	Role of Assistant in Laparoscopic Surgery Assoc. Prof. Dr. IslahMunjih bin Ab Rashid
0920-0940H	Common Laparoscopic Complications, Acute and Delayed: Recognition, Prevention and Management Prof. Dr. Nasser Muhammad Amjad
0940-1000H	Recent Advances in Laparoscopic Surgery Assoc. Prof. Dr. Mohd Nazli bin Kamarulzaman
1000-1020H	Anaesthesia Considerations Asst. Prof. Dr. Mohd. Nizamuddin bin Ismail
1020-1100H	Tea Break and Drug Talk by Karl Storz/ Olympus
1100-1145H	Laparoscopic Cholecystectomy Assoc. Prof. Dr. Mat Salleh bin Sarif
1145-1230H	Laparoscopic Inguinal and Umbilical Hernia Repair Assoc. Prof. Dr. Junaini bin Kasian
1230-1400H	Lunch Break
1400-1445H	Laparoscopic Appendicectomy Prof. Dr. Azmi Md Nor / Asst. Prof. Dr. Faisel S. A. Saad Elagili
1445-1515H	Practical

1515-1545H	Hi-Tea
1545-1630H	Practical
1630-1700H	Briefing on hands-on and Photography session Pre-operative patient review

Bowel Anastomoses For Laparoscopic Surgery

Asst.Prof Faisal Elagili, MD,MS,FASCRS

Consultant Colorectal and General Surgeon

General Considerations

- A laparoscopic anastomosis follows the same basic principles as an open anastomosis.

- Surgeons typically use various modifications of three techniques
  - Hand sewn
  - Linear stapled
  - Circular stapled anastomosis (EEA).

General Considerations

- An open surgery allows a surgeon to approach an organ for anastomosis from multiple angles.

- Laparoscopy restricts this to the angle formed by the trocar entry site and the organ's position.

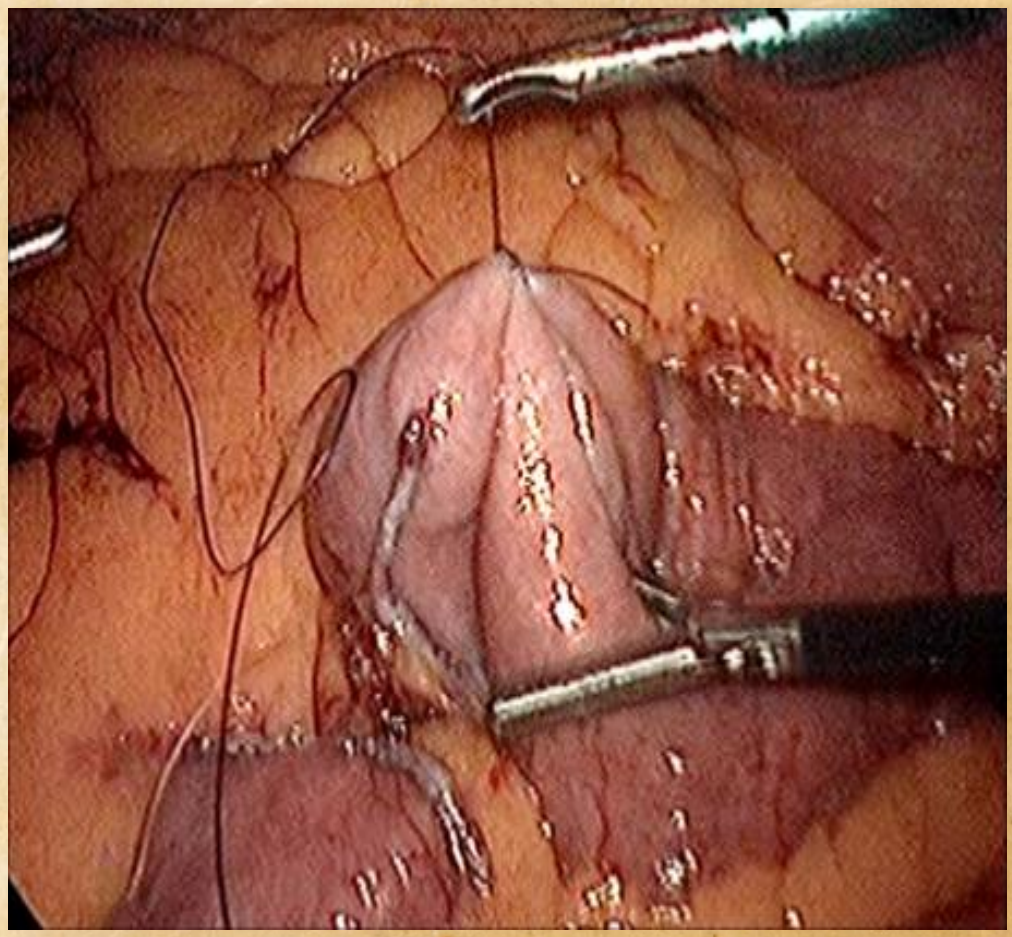
- Organs with a high degree of mobility, such as the small bowel, are thus easier to join because they can be manipulated into a more favourable position than the duodenum or stomach cardia, which are largely fixed.

Linear Stapled Anastomosis

- Side to side anastomosis of the small bowel (jejunojejunostomy in a gastric bypas)
- End to side (gastrojejunostomy)
- Functional end to end configurations (Small bowel resection with primary anastomosis, Intracorporeal ileocolic anastomosis after laparoscopic right colectomy)

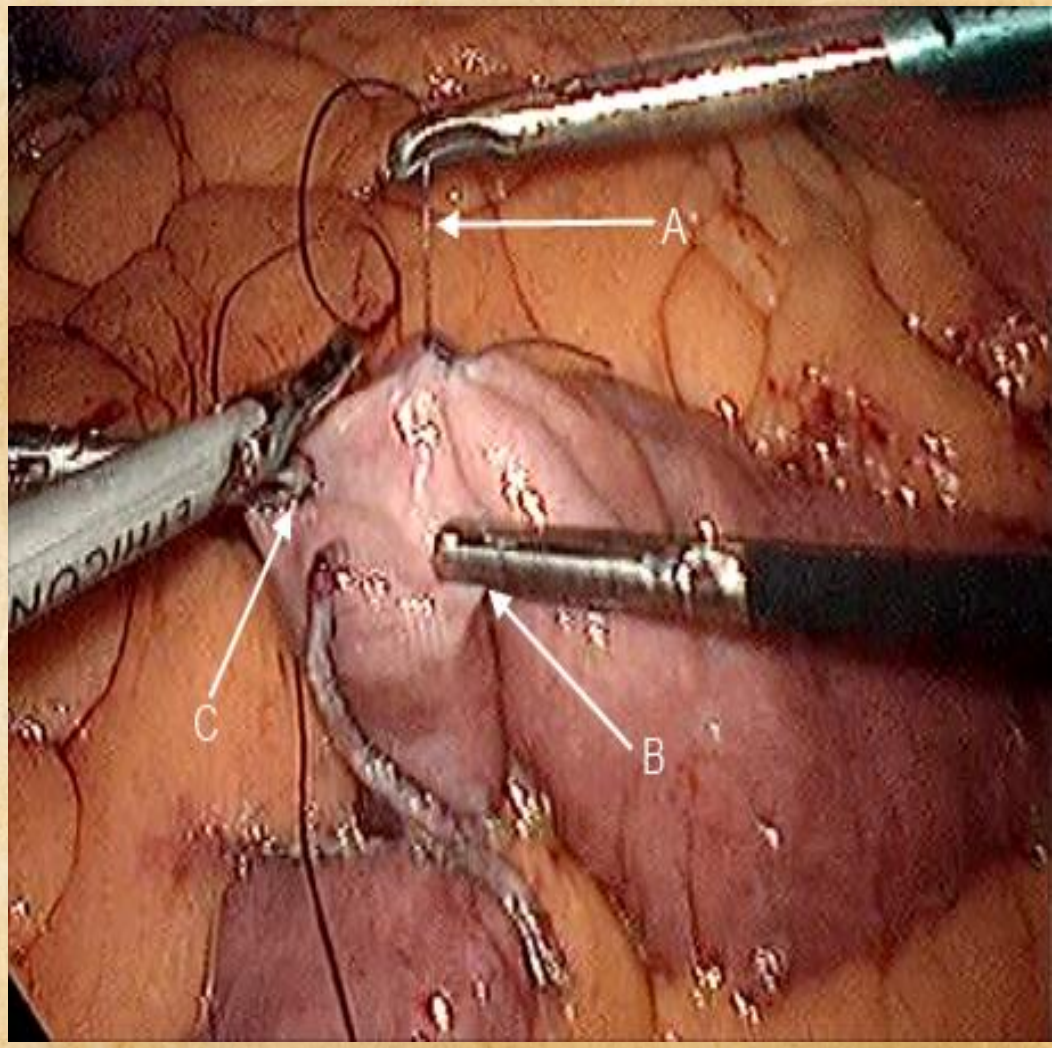
Linear Stapled Anastomosis

- The two bowel segments are brought
- into juxtaposition
- Single stitch placed between them
- The assistant lifts this stitch up with
- the right hand, suspending the
- bowel segments.



Linear Stapled Anastomosis

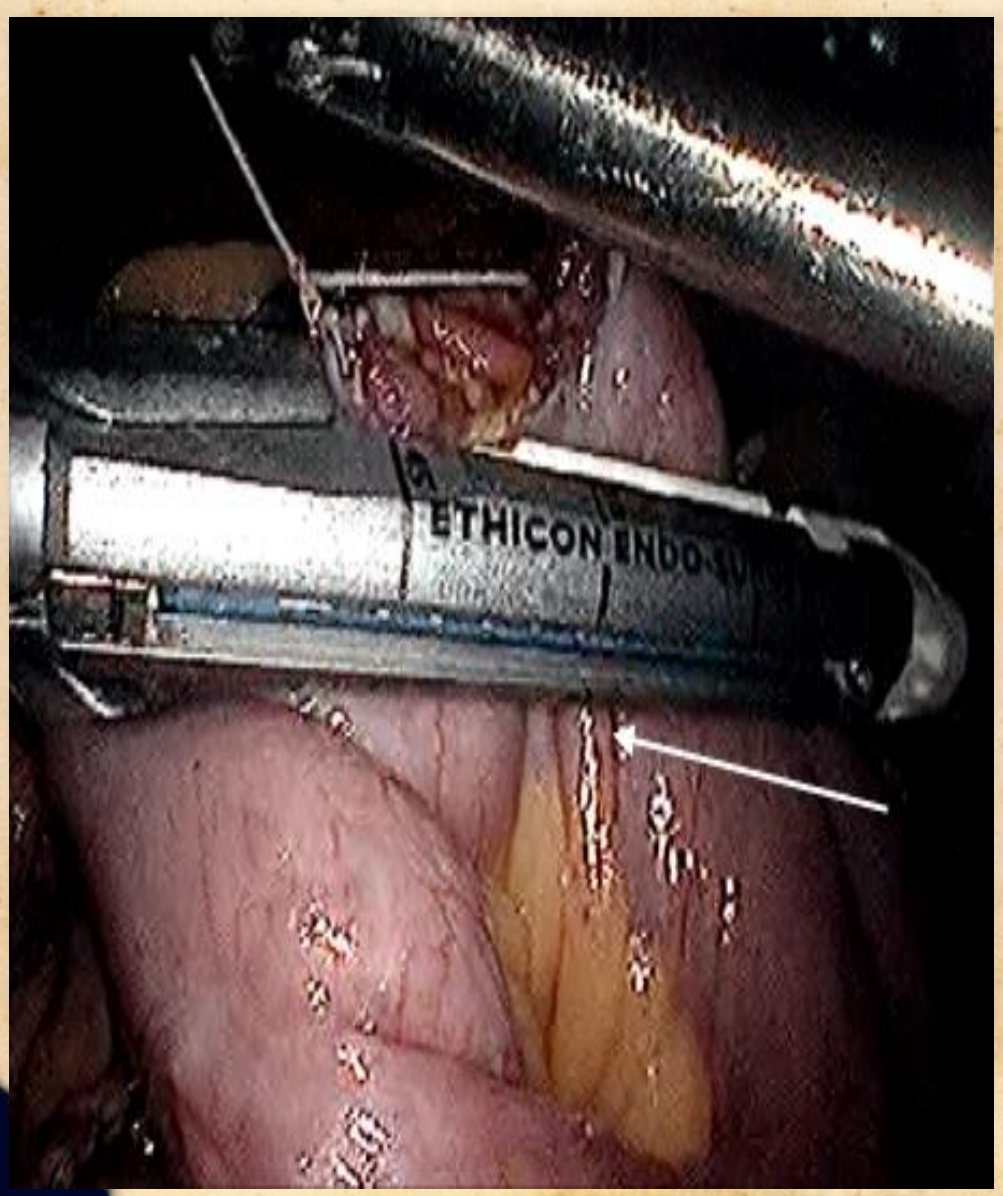
- Enterotomies are created on the antimesenteric side

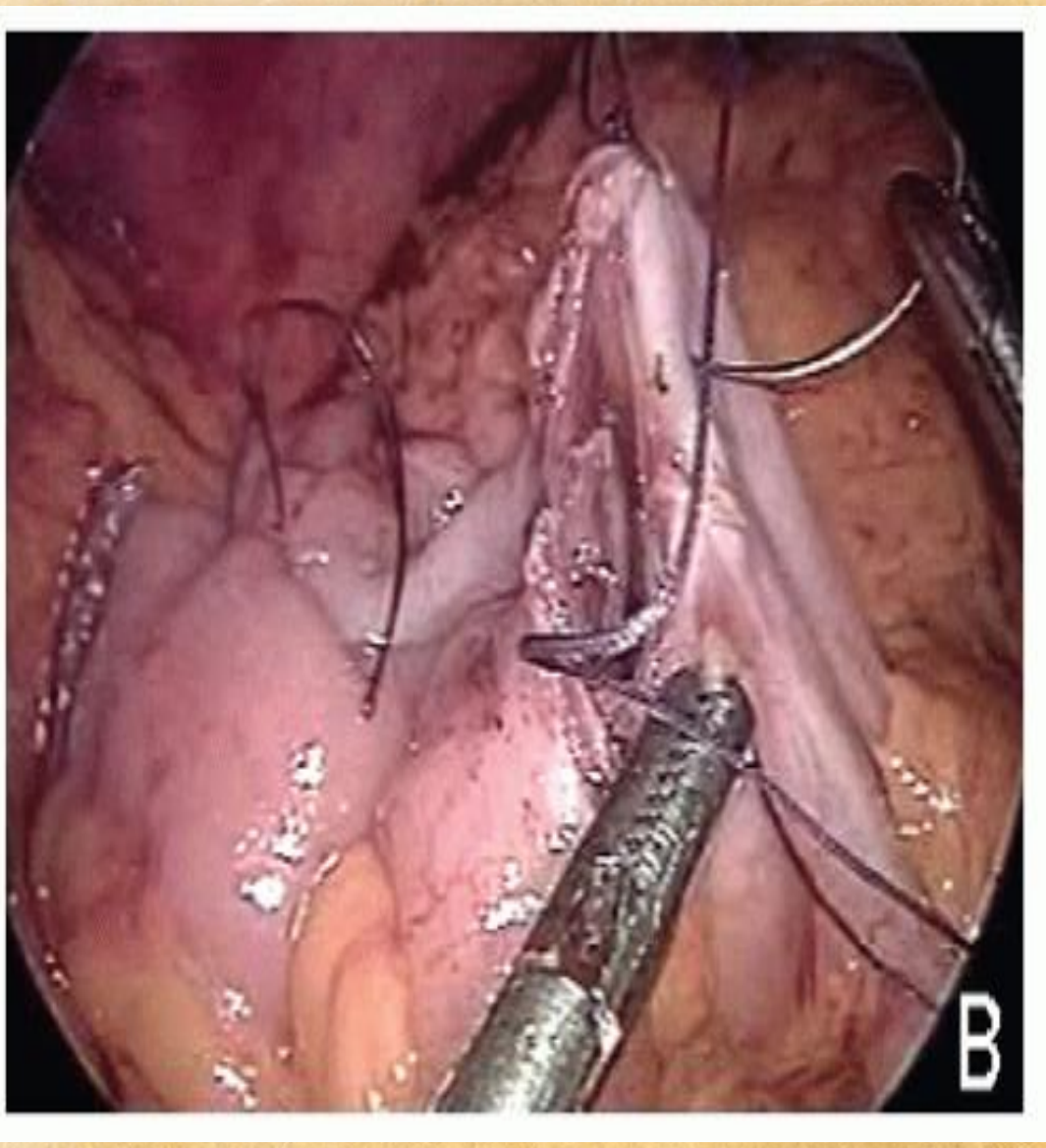


Linear Stapled Anastomosis

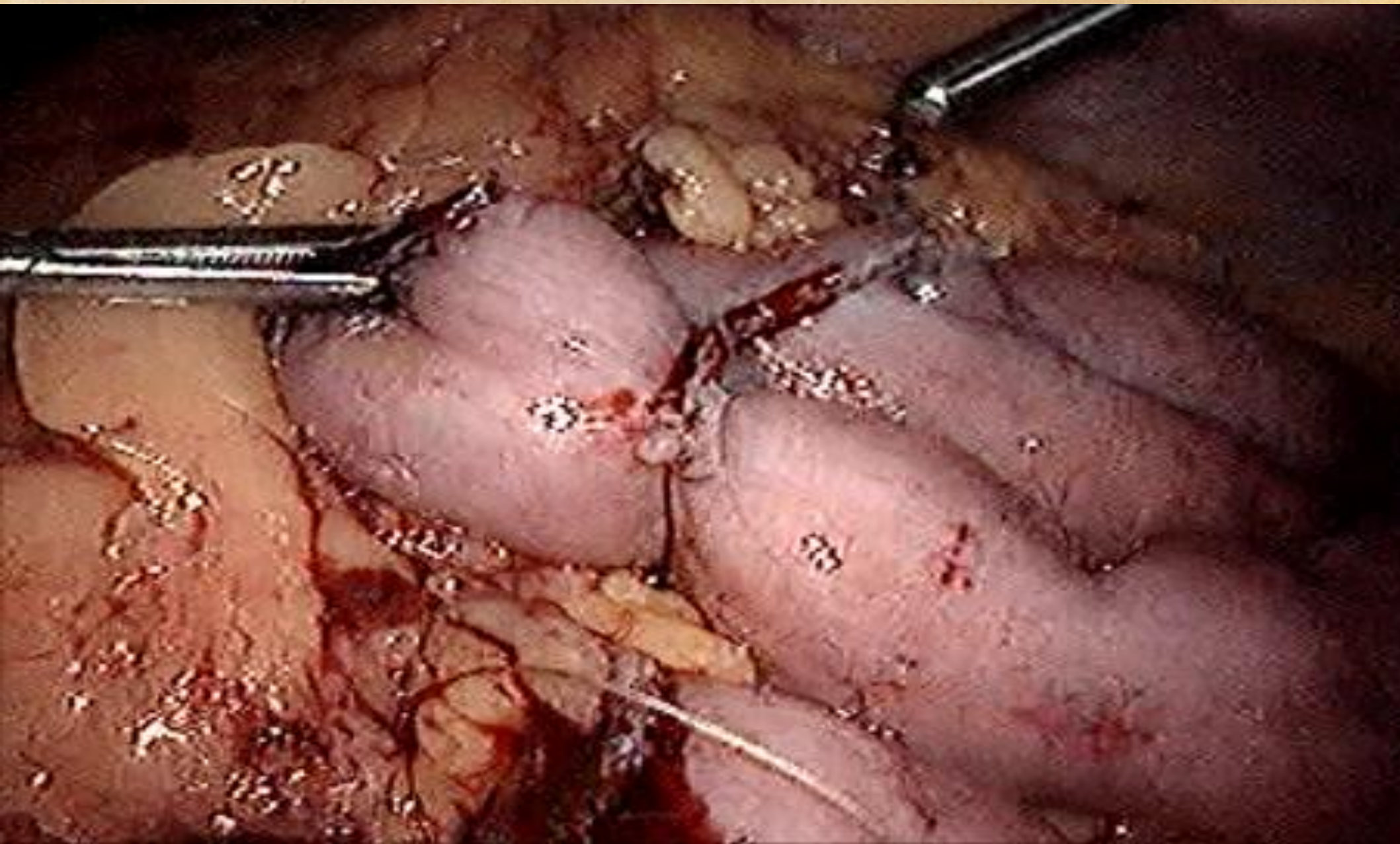
- Slips the cartridge and anvil aspects of the linear stapler cutter into the corresponding enterotomies
- Two limbs of intestine are advanced over the device similar to pulling up a pair of pants
- Stapler is fired to create the side to side anastomosis.

Linear Stapled Anastomosis





Linear Stapled Anastomosis



Hand Sewn Anastomosis

- Is appropriate for virtually any type of gastrointestinal anastomosis
  - Side to side
  - End to side
  - End to end

Hand Sewn Anastomosis

- It usually takes more time.

- The suture line's axis in relation to the needle driver is crucial.

- Provides some flexibility that stapled anastomoses do not. Because each stitch is placed next to the one before it, an anastomosis is built up gradually, allowing for the joining of

End to End Anastomosis (EEA)

- It is most useful when one of the ends being joined is immobile, such as the rectum, oesophagus, or upper stomach.
- It is quick, completing the entire anastomosis with a single squeeze of the handle.
- Produces a uniform size lumen

Comparison of Hand-Sewn, Linear-Stapled, and Circular-Stapled Gastrojejunostomy in Laparoscopic Roux-en-Y Gastric Bypass

Frank P. Bendewald · Jennifer N. Choi · Lorie S. Blythe · Don J. Selzer · John H. Ditslear · Samer G. Mattar

Published online: 9 July 2011

Abstract
Background There is no consensus on the ideal gastrojejunostomy anastomosis (GJA) technique in laparoscopic Roux-en-Y gastric bypass (LRYGB). We reviewed our experience with three GJA techniques (hand-sewn (HSA), linear-stapled (LSA), and 25-mm circular-stapled (CSA)) to determine which anastomosis technique is associated with the lowest early (60-day) anastomotic complication rates.
Methods From November 2004 through December 2009, 882 consecutive patients underwent LRYGB using three GJA techniques: HSA, LSA, and CSA. All patients had a minimum of 2 months follow-up. Records were reviewed for postoperative gastrojejunostomy leak, stricture, and marginal ulcer, and these early complications were classified according to anastomosis technique. Multivariate analysis was performed to determine associations between complications and anastomosis technique.
Results Preoperative demographics, length of hospital stay, and postoperative follow-up did not differ between the three groups. The majority of patients underwent LSA (n=514, 61.6%) followed by HSA (n=180, 21.6%) and CSA (n=140, 16.8%). Using multivariate analysis, there were no statistically significant differences in the rates of leak (LSA 1.0%, HSA 1.1%, CSA 0.0%, p=0.480), stricture (LSA 6.0%, HSA 6.1%, CSA 4.3%, p=0.657), or marginal ulcer (LSA 8.0%, HSA 7.7%, CSA 3.6%, p=0.180).
Conclusions The three techniques can be used safely with a low complication rate. Our data do not identify a superior anastomosis technique.

Keywords Bariatric surgery · Anastomoses · Stapled · Technique

Introduction

The percentage of Americans who are morbidly obese (BMI ≥40) increased by over 50% between 2000 and 2005 [1]. Surgical weight loss is increasingly utilized as effective and durable therapy, and in 2009, approximately 220,000 bariatric operations were performed in the USA (www.asmbs.org/Newsite07/media/ASMBS_Metabolic_Bariatric_Surgery_Overview_FINAL_09.pdf). Laparoscopic Roux-en-Y gastric bypass (LRYGB) has been shown to reduce mortality and improve quality of life in the morbidly obese [2, 3]. Numerous LRYGB techniques have been

Review Article (Current Strategies in Colon Cancer Management)

Intracorporeal anastomosis versus extracorporeal anastomosis for minimally invasive colectomy

Rebecca F. Brown, Robert K. Cleary

Department of Colon and Rectal Surgery, St. Joseph Mercy Ann Arbor Hospital, Ann Arbor, MI, USA

Contributions: (I) Conception and design: RK Cleary; (II) Administrative support: None; (III) Provision of study materials or patients: None; (IV) Collection and assembly of data: All authors; (V) Data analysis and interpretation: RF Brown; (VI) Manuscript writing: All authors; (VII) Final approval of manuscript: All authors.

Table 1 Outcomes comparison of intracorporeal (IA) and extracorporeal (EA) right hemicolectomies

Authors	Year	MIS type	N (%IA)	Operative time (min), IA *vs.* EA (P)	Conversion to open (%), IA *vs.* EA (P)	All complications (%), IA *vs.* EA (P)	SSI (%), IA *vs.* EA (P)	AL (%), IA *vs.* EA (P)	Ileus (%), IA *vs.* EA (P)	IH (%), IA *vs.* EA (P)	SBO (%), IA *vs.* EA (P)	LOS (days), IA *vs.* EA (P)	Study design
Feroci *et al.* (13)	2013	Lap	425 (47.5)	No difference (0.25)	N/A	No difference (0.16)	No difference (0.68)	No difference (0.92)	No difference (0.45)	N/A	N/A	Shorter in IA (<0.01)	Systematic review and meta-analysis
Hanna *et al.* (14)	2015	Lap	195 [44]	183 *vs.* 184.5 (NS)	0 *vs.* 9.2 (<0.05)	53 *vs.* 38 (<0.05)	10 *vs.* 5.5 (<0.05)	1.2 *vs.* 4.6 (NS)	22 *vs.* 8 (<0.05)	N/A	N/A	5.0 *vs.* 5.0 (NS)	Retrospective review
Shapiro *et al.* (15)	2015	Lap	191 [48]	155 *vs.* 142 (<0.01)	1.1 *vs.* 1.0 [1]	18.7 *vs.* 35 (0.01)	4.4 *vs.* 14 (0.02)	0 *vs.* 3 (0.25)	6.6 *vs.* 10 (NS)	2.2 *vs.* 17 (<0.01)	0 *vs.* 2 (0.50)	5.9 *vs.* 6.9 (0.04)	Prospective comparative study
Biondi *et al.* (16)	2017	Lap	116 [50]	196 *vs.* 189 (0.25)	N/A	16.7 *vs.* 16.7 [1]	3 *vs.* 6 (NS)	0 *vs.* 1 (NS)	1 *vs.* 0 (NS)	1.9 *vs.* 21.2 (<0.01)	1.9 *vs.* 3.8 (0.54)	4.8 *vs.* 6.8 (<0.01)	Retrospective review
Akram *et al.* (17)	2018	Robot	110 [50]	168 *vs.* 142 (<0.01)	0 *vs.* 12.7 (0.01)	0.78 *vs.* 1.91 (<0.01)	0 *vs.* 7.3 (0.12)	0 *vs.* 9.1 (0.06)	9.1 *vs.* 21.8 (0.11)	0 *vs.* 9 (0.06)	N/A	3 *vs.* 3 (0.92)	Retrospective propensity-score comparison (single site)
Cleary *et al.* (9)	2018	Lap & Robot	1,029 [37]	186 *vs.* 150 (<0.01)	0.3 *vs.* 2.9 (0.01)	5 *vs.* 8.9 (0.04)	0.5 *vs.* 1.4 (NS)	0.0 *vs.* 0.9 (NS)	2.4 *vs.* 2.9 (NS)	N/A	N/A	4 *vs.* 4.5 (0.02)	Retrospective propensity-score comparison (multiple site)
Ricci *et al.* (18)	2016	Lap	1,717 (50.3)	129 *vs.* 121 (0.46)	2.8 *vs.* 4.7 (0.41)	27.6 *vs.* 38.4 (<0.01)	4.9 *vs.* 8.9 (0.03)	3.4 *vs.* 4.6 (0.12)	N/A	2.3 *vs.* 13.7 (0.02)	N/A	5 *vs.* 5 (NS)	Systematic review and meta-analysis
van Oosten-dorp *et al.* (19)	2016	Lap	1,492 [51]	N/A	N/A	Lower in IA (OR 0.68)	Lower in IA (OR 0.56)	No difference	No difference	N/A	N/A	Shorter by 0.7d in IA	Systematic review and meta-analysis

MIS, minimally invasive surgery; SSI, surgical site infection; AL, anastomotic leak; IH, incisional hernia; SBO, small bowel obstruction; LOS, length of stay; N/A, data not included/provided in study; NS, no significant difference reported by authors.

End to End Anastomosis (EEA)

Table 2 Outcomes comparison of intracorporeal (IA) and extracorporeal (EA) left hemicolectomies

Authors	Year	MIS type	N (%IA)	Operative time (min), IA *vs.* EA (P)	Conversion to Open (%), IA *vs.* EA (P)	All Complications (%), IA *vs.* EA (P)	SSI (%), IA *vs.* EA (P)	AL (%), IA *vs.* EA (P)	Ileus (%), IA *vs.* EA (P)	IH (%), IA *vs.* EA (P)	SBO (%), IA *vs.* EA (P)	LOS (days), IA *vs.* EA (P)	Study design
Swaid *et al.* (21)	2015	Lap	52 [63]	132 *vs.* 124 (0.29)	0 *vs.* 0	12 *vs.* 33 (not given)	0 *vs.* 5 (0.37)	3 *vs.* 0 (0.37)	0 *vs.* 0	N/A	N/A	4.2 *vs.* 6.3 (<0.01)	Retrospective review
Al Natour *et al.* (12)	2018	Robot	114 [50]	193 *vs.* 160 (<0.01)	5.26 *vs.* 19.3 (0.03)	0.579 *vs.* 0.737 (0.45)	1.75 *vs.* 12.38 (0.06)	3.5 *vs.* 0 (0.50)	N/A	0% *vs.* 10.5% (0.03)	N/A	2.9 *vs.* 4.0 (0.18)	Retrospective propensity-score comparison (single site)
Milone *et al.* (22)	2018	Lap	181 [51]	184 *vs.* 154 (<0.01)	2 *vs.* 21 (<0.01)	9.8 *vs.* 28.1 (<0.01)	1 *vs.* 3*	2 *vs.* 1*	N/A	N/A	N/A	6.1 *vs.* 6.8 (0.08)	Multi-Institution case control
Grieco *et al.* (23)	2019	Lap	72 [50]	187 *vs.* 157 (0.07)	N/A	0 *vs.* 13.9 (0.04)	0 *vs.* 8 (not given)	0 *vs.* 2.8 (not given)	N/A	2.8 *vs.* 16.7 (0.05)	N/A	6 *vs.* 8.5 (<0.01)	Retrospective propensity-score comparison (multiple site)
Masubuchi *et al.* (24)	2019	Lap	40 [50]	222 *vs.* 204 (0.24)	N/A	N/A	10 *vs.* 10 (1)	0 *vs.* 0	5 *vs.* 5 (1)	N/A	N/A	11 *vs.* 12 (0.57)	Retrospective propensity-score comparison (single site)

MIS, minimally invasive surgery; SSI, surgical site infection; AL, anastomotic leak; IH, incisional hernia; SBO, small bowel obstruction; LOS, length of stay; N/A, data not included/provided in study.

Intracorporeal or Extracorporeal Ileocolic Anastomosis After Laparoscopic Right Colectomy

A Double-blinded Randomized Controlled Trial

Marco E. Allaix, MD, PhD,✉ Maurizio Degiuli, MD,* Marco A. Bonino, MD,* Alberto Arezzo, MD,* Massimiliano Mistrangelo, MD,* Roberto Passera, PharmD, PhD,† and Mario Morino, MD*✉*

Objectives: The aim of the study was to determine whether there are clinically relevant differences in outcomes between laparoscopic right colectomy (LRC) with intracorporeal ileocolic anastomosis (IIA) and LRC with extracorporeal IA (EIA).

Background: IIA and EIA are 2 well-established techniques for restoration of bowel continuity after LRC. There are no high-quality studies demonstrating the superiority of one anastomotic technique over the other.

Methods: This is a double-blinded randomized controlled trial comparing the outcomes of LRC with IIA and LRC with EIA in patients with a benign or malignant right-sided colon neoplasm. Primary endpoint was length of hospital stay (LOS). This trial was registered with ClinicalTrials.gov, number NCT03045107.

Results: A total of 140 patients were randomized and analyzed. Median operative time was comparable in IIA versus EIA group {130 [interquartile range (IQR) 105–195] vs 130 (IQR 110–180) min; $P = 0.770$} and no intraoperative complications occurred. The quicker recovery of bowel function after IIA than EIA [gas: 2 (IQR 2–3) vs 3 (IQR 2–3) days, $P = 0.003$; stool: 4 (IQR 3–5) vs 4.5 (IQR 3–5) days, $P = 0.032$] was not reflected in any advantage in the primary endpoint: median LOS was similar in the 2 groups [6 (IQR 5–7) vs 6 (IQR 5–8) days; $P = 0.839$]. No significant differences were observed in the number of lymph nodes harvested, length of skin incision, 30-day morbidity (17.1% vs 15.7%, $P = 0.823$), reoperation rate, and readmission rate between the 2 groups.

Conclusions: LRC with IIA is associated with earlier recovery of postoperative bowel function than LRC with EIA; however, it does not reflect into a shorter LOS.

Keywords: anastomosis, extracorporeal, intracorporeal, laparoscopic right colectomy, randomized controlled trial

(*Ann Surg* 2019;270:762–767)

mesenteric traction, lower risk of ileum mesentery twisting while anastomosis construction, and shorter skin incision for the specimen extraction.[3]

Several retrospective studies have compared outcomes after LRC with IIA or EIA reporting controversial results: some showed earlier return of bowel function, lower morbidity, and shorter length of hospital stay (LOS) after IIA than EIA, whereas others did not find significant differences between the 2 techniques.[4–21] The rate of prolonged postoperative ileus does not seem to be affected by surgical technique.[21,22] The heterogeneity of the studies and the lack of randomization do not allow to clearly define possible clinical advantages of one technique over the other.[22–25]

The aim of this double-blinded randomized controlled trial (RCT) was to determine whether there are clinically relevant differences in outcomes between LRC with IIA and LRC with EIA.

METHODS

Patient Selection

This is a single-institution double-blind RCT comparing the outcomes in patients undergoing LRC with IIA or EIA between February 2017 and August 2018. All consecutive patients aged 18 years or older with a benign or malignant right-sided colon neoplasm were considered. Exclusion criteria were distant metastases, perioperative evidence of adjacent organs tumor invasion, emergent surgery, and scheduled synchronous intra-abdominal surgery. Patient characteristics, perioperative work-up, intraoperative results, and postoperative outcomes were recorded into a prospective database by an observer who was blinded to treatment. The protocol was approved by the ethical committee of our institution.

Summary

- Each of the laparoscopic anastomotic techniques discussed has advantages.
- Most advanced laparoscopic surgeons will adopt one of the methods, become proficient in it, and rely on it exclusively.
- A surgeon, like a craftsman, can never have too many tools at his or her disposal, and familiarity with each is essential.

Laparoscopic Appendectomy

Asst.Prof Faisal Elagili, MD,MS,FASCRS

Consultant Colorectal and General Surgeon

Indications

- Laparoscopic appendectomy is recommended as the preferred approach over open appendectomy for both uncomplicated and complicated acute appendicitis where laparoscopic equipment and expertise are available

- Conventional three-port laparoscopic appendectomy is recommended over single-incision laparoscopic appendectomy

2020 update,the World Society of Emergency Surgery (WSES) published guidelines

Indications

- Laparoscopic appendectomy is suggested over open appendectomy in obese patients, older patients, and patients with high peri- and postoperative risk factors

- Laparoscopic appendectomy should be preferred to open appendectomy in pregnant patients when surgery is indicated and laparoscopic expertise is available

2020 update,the World Society of Emergency Surgery (WSES) published guidelines

Technical Considerations

- Anatomy
  - Posteromedial aspect about 2.5 cm below the ileocecal valve
  - Retrocecal (65%), Pelvic (31%), ascending, paracecal, and preileal (1%); and ascending, paracecal, and postileal (0.4%)
  - I dentified during surgery by following the convergence of the taeniae coli toward the inferior portion of the cecum
  - Appendicular artery
  - The mesoappendix
  - The fold of Treves

Equipment

- Standard laparoscopic equipment
  - Trocars
  - Blunt graspers
  - Hook electrocautery
  - Laparoscope, 30º, 10 mm
  - Electrosurgical device (eg, electrocautery wand, Harmonic Scalpel)

- The following equipment, if available, is also helpful
  - Laparoscope, 30º, 5 mm
  - Laparoscopic clip applier

Technique

Postoperative Care

Complications

- Early
  - Surgical-site infection (SSI)
  - Bleeding
  - Intra-abdominal abscess
  - Unrecognized enteric injury
  - Fistula formation
- Late
  - Incisional hernia
  - Stump appendicitis