


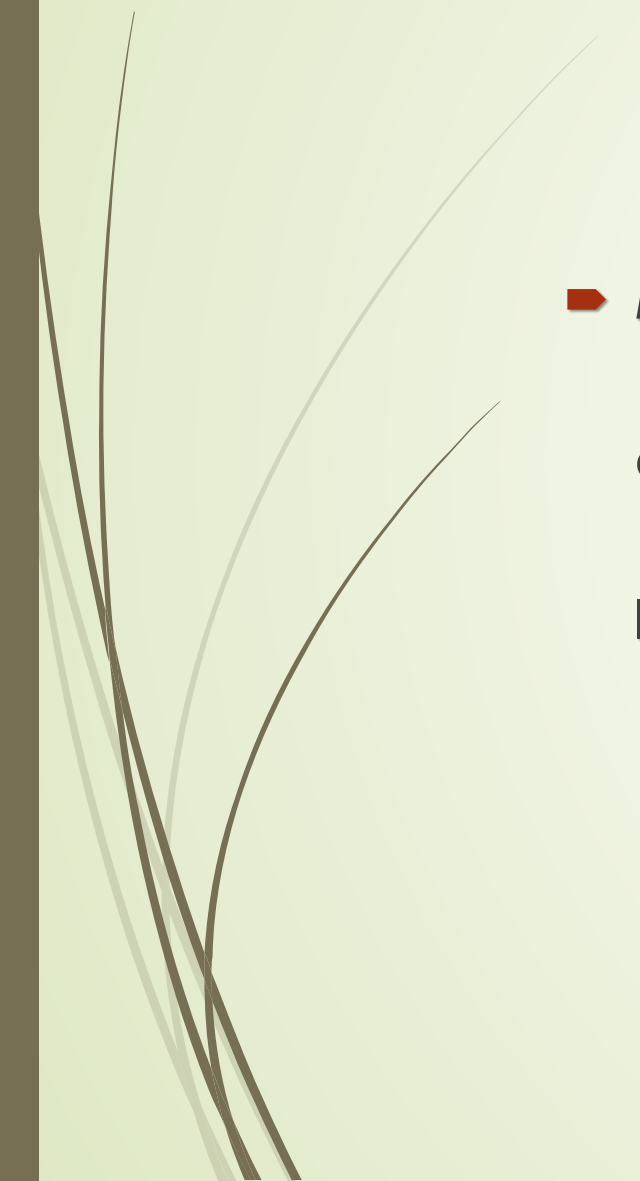


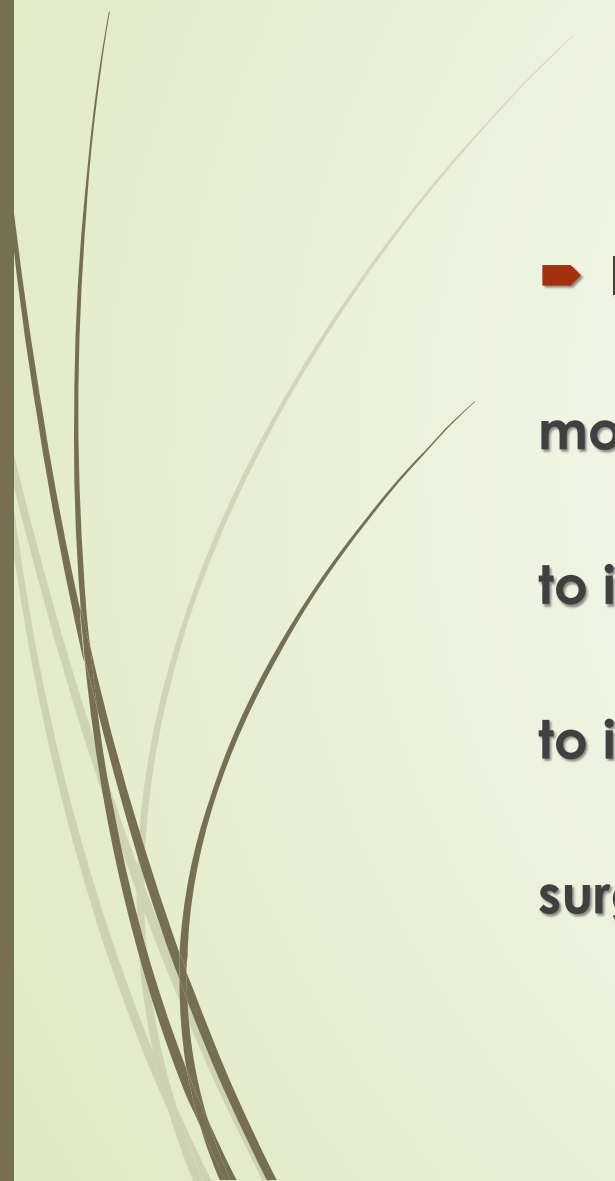



Intra-corporeal Anastomosis: Happy Patient or A Bridge Too Far ?



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- **The laparoscopic approach is increasingly being performed worldwide for colorectal cancer .**
 - **Since its introduction in 1991, accumulating high-quality evidence indicates that laparoscopic treatment of colon carcinoma is similar to the open technique.**

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- **Moreover, high-quality evidence has demonstrated that short-term and long-term safety and quality outcomes are better for laparoscopically treated patients**



➤ In recent years, the focus of academic discussion has been moved from the safety and feasibility of laparoscopic resection to its technical aspects in order to identify new methods to improve the existing techniques in terms of radicality and surgical outcomes.



➤ In the last decade, many studies provided accumulating data comparing laparoscopic-assisted colectomy with extracorporeal anastomosis and total laparoscopic colectomy with intracorporeal anastomosis

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- **One of the major ongoing open debates is the safety and efficacy of intracorporeal anastomosis in laparoscopic colectomies**



Intracorporeal versus extracorporeal anastomosis after laparoscopic left colectomy for splenic flexure cancer: results from a multi-institutional audit on 181 consecutive patients

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Laparoscopic right hemicolectomy with intracorporeal versus extracorporeal anastomosis: a comparison of short-term outcomes

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Background: There is wide variation among laparoscopic colon resection techniques, including the approach for mobilization and the extent of intracorporeal vessel ligation, bowel division or anastomosis. We compared the short-term outcomes of laparoscopic right hemicolectomy (LRHC) with intracorporeal (IA) versus extracorporeal (EA) anastomosis.

Methods: We retrospectively reviewed all elective laparoscopic right hemicolectomies performed at St. Joseph's Hospital between January 2008 and September 2009



Intracorporeal versus extracorporeal anastomosis in right hemicolectomy: a systematic review and meta-analysis

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Intracorporeal versus extracorporeal anastomosis in right hemicolectomy assisted by laparoscopy: study protocol for a randomized controlled trial

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Abstract

Background Colorectal cancer (CRC) is the third most frequent cancer diagnosed in men and the second in women. Laparoscopic surgery has been a technical revolution in colorectal surgery, facilitating a better recovery of patients with lower morbidity and better esthetic results, compared to traditional surgery via laparotomy, without compromising safety and long-term oncological results.

Intracorporeal versus extracorporeal anastomosis for minimally invasive right colectomy: A multi-center propensity score-matched comparison of outcomes

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Oncological outcomes

- All the literatures reported that I.A and E.A have the same oncological outcomes as regards radicality and number of lymph nodes harvested


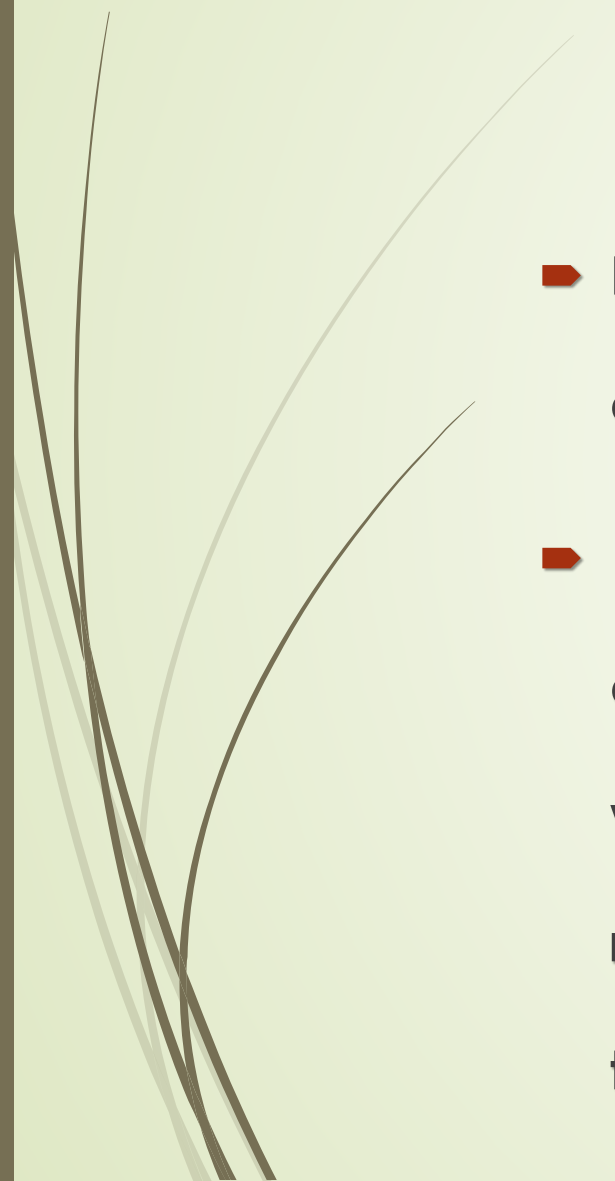


Specific Considerations



1- Mobilization

- The extracorporeal technique often requires more mobilization.
- For some patients with high BMI, short/thick mesentery, and thick abdominal wall.

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- **Namely the ability to mobilize the bowel under vision without extending traction on the mesentery.**
 - **Intracorporeal anastomoses require less mobilization than extracorporeal anastomoses, and therefore, could be associated with lower rates of leakage (not definite conclusion, some literature reported that , others reported no significant difference as regard this point).**



2-Conversion rate and operative time

- Some literature revealed significantly fewer conversions and shorter operative time for the IA group. Other studies reveal conflicting results.
- Future studies that include subgroup analysis may suggest that patients with higher BMI may have fewer conversions if selected for the intracorporeal technique.



3-Site of extraction and cosmetic results

- **One of the major advantages of the complete laparoscopic technique is the ability to use any abdominal location for specimen extraction, compared to the laparoscopic-assisted technique, in which the incision is often conditioned by the planned location of anastomosis. (The specimen was delivered through the midline extraction incision)**



➤ Consistent with these findings , the pfannenstiel incision commonly used in patients treated by complete laparoscopic colectomy.

It is associated with excellent cosmetic results and exhibits a low incidence of incisional hernia (0 to 2%) and low risk of infection



4-Intestinal Recovery

- With the intracorporeal anastomosis, there is no need to perform one of the most important parts of the operation during E.C through a small incision with poor visualization and there is no unintentional twisting or mesenteric stretching that can result in edema, bleeding, and resultant delayed intestinal recovery



5-Hospital Stay

- Several studies demonstrate an advantage for the intracorporeal anastomosis as regards less analgesic requirements and short hospital stay while others show no significant difference . This outcome is related to intestinal recovery time



6-Incisional Hernia And Incision Size

- Extraction site for the extracorporeal approach is typically the midline where the incisional hernia rate is highest.
- Several studies have shown that the intracorporeal anastomosis allows specimen extraction at off-midline sites and the pfannenstiel location with decreased risk for subsequent incisional hernia



Conclusion

- Complete laparoscopic approach could be considered a safe method with the advantage of less mobilization, faster recovery after surgery and better cosmesis but it cannot yet be considered the gold standard approach due to limitations of the present experience and we need more literatures to obtain more definite conclusion.

Thank You!

