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INCISIONAL HERNIAS ARE HIGHER IN MIDLINE INCISIONS COMPARED TO NON-MIDLINE INCISIONS: A SINGLE INSTITUTION REVIEW.

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Purpose/Background: Despite the introduction of minimally invasive surgery, incisional hernias remain a frequent complication after colectomies. Recent studies have described persistently high incisional hernia rates after minimally invasive right colectomies. Prior studies have discussed that moving the extraction incision off midline can help mitigate these risks. Intracorporeal anastomosis allows for the use of any extraction site. The objective of this study is to determine the rate of incisional hernias of different extraction sites for laparoscopic right colectomy/ileocolectomy at a single institution.

Methods/Interventions: Patients undergoing either a right colectomy or an ileocolectomy between July 2013 and July 2019 at a single academic institution were retrospectively identified. Demographics, operative approaches, extraction sites, and clinical outcomes of these patients were analyzed. The primary outcome was incisional hernias diagnosed by either physical examination or on review of computed tomography imaging in the postoperative period.

Results/Outcome(s): We identified a total of 225 patients undergoing minimally invasive right colectomy or ileocolectomy. Of these, 220 (97.8%) were laparoscopic and 5 (2.2%) were robotic. The majority of procedures were performed for either cancer resection (74.2%) or inflammatory bowel disease (23.6%). Specimens were extracted through the midline (24.4%), Pfannenstiel (64.0%), and off-midline incisions (11.6%). Patient demographics were similar among all groups. 77 extracorporeal anastomoses were performed; of these, 50.6% utilized a midline incision. 148 intracorporeal anastomoses were created; midline incisions were made in only 10.8% of these cases. The overall incisional hernia rate for the entire cohort was 1.33%. Patients with midline extractions had a higher rate of incisional hernias (5.45%) compared to those with Pfannenstiel (0%) or off-midline extractions (0%) ($p < 0.05$).

Conclusions/Discussion: Incisional hernias are significantly decreased when choosing an Pfannenstiel or off-midline incision for specimen extraction. Laparoscopic colectomy with intracorporeal anastomosis is a technique which allows for choice of any extraction site and can help minimize risk of postoperative incisional hernia. Consideration should be given to preferentially using Pfannenstiel or off-midline incisions for specimen extraction.