Laparoscopic Loop Ostomy (Loop Ileostomy and Sigmoid Colostomy)

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Indications

- Need for temporary or permanent diversion of the fecal stream, such as an obstructing distal cancer

Essential Steps

1. Enterostomal nurse education with stoma site marking, while patient is awake and in the upright and sitting position.
2. Obtain laparoscopic access and insufflate the abdomen. Place ports. Mobilize the *terminal ileum*/*sigmoid colon* as appropriate.
3. Choose location on bowel that will easily reach chosen site of stoma on the abdominal wall.
4. Create stoma site:
   - Excise skin.
   - Divide/spread anterior sheath/rectus/posterior sheath and peritoneum.
5. Grasp the terminal ileum or sigmoid colon and allow the abdomen to deflate.
6. Bring loop of the terminal ileum or sigmoid through stoma site aperture.
7. Confirm orientation.
8. Check hemostasis.
9. Close port sites.
10. Mature stoma.

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Note These Variations

- May perform either loop ileostomy or loop sigmoid colostomy.
- End colostomy may be created by completely dividing the colon with a stapler and maturing the proximal end.

Complications

- Iatrogenic injury during access to the abdomen
- Ischemia of the stoma
- Obstruction/ileus
- Stoma retraction
- Stoma prolapse
- Parastomal hernia

Template Operative Dictation

Preoperative Diagnosis *Obstructing colon/rectal cancer*

Procedure (*Specify type*) laparoscopic diverting loop *ileostomy*/*colostomy*

Postoperative Diagnosis Same

J.J. Hoballah et al. (eds.), *Operative Dictations in General and Vascular Surgery*,
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Indications The patient is a ___ -year-old *male/female* who presented with _____. Fecal diversion is indicated at this time.

Description of the Procedure The patient was taken to the operating room and placed supine on the operating room table. Time-outs were performed using both preinduction and pre-incision safety checklists to verify correct patient, procedure, site, and additional critical information prior to beginning the procedure. After the induction of general anesthesia, one or both upper extremities were tucked with all pressure points padded appropriately. A urinary catheter was placed using sterile technique. The abdomen was prepped and draped in a sterile fashion.

The abdomen was entered in the midline above the umbilicus using the *Hasson technique/Veress needle*. The abdomen was insufflated to achieve a carbon dioxide pneumoperitoneum of 15 mmHg. A 5 mm/12 mm port was placed at the umbilicus, and a laparoscope was used to examine the abdomen for iatrogenic injury and adhesions, and none was seen. The liver was examined and revealed _____ (*metastatic disease*). A thorough abdominal laparoscopic exploration was performed.

If loop ileostomy: Two additional ports were placed under direct vision in the left lower quadrant and the suprapubic region. The small bowel was run to identify the terminal ileum. Approximately 10–20 cm proximal to the ileocecal valve, a loop of the ileum was chosen that would easily reach the abdominal wall without tension. The patient had been previously marked by enterostomal nurse, and this site in the right *lower/upper* quadrant was used for the ileostomy. A disc of the skin was excised, and dissection was carried down to the fascia. The anterior rectus sheath was incised, the underlying rectus muscle was split, and the posterior rectus sheath was incised to comfortably accommodating two fingers. Under direct vision, the loop of small bowel was brought through the abdominal wall and laid to rest until the wounds were closed. The orientation was double checked.

If sigmoid colostomy: Two additional 5 mm ports were placed under laparoscopic vision in the right lower quadrant and right upper quadrant. The patient was placed in Trendelenburg tilt with rotation to the right side. The small bowel was swept out of the pelvis, and the tumor in the sigmoid colon was visualized. Lateral to medial dissection of the sigmoid colon was carried out by retracting the sigmoid colon medially and taking down the white line of Toldt. The sigmoid colon was dissected off the retroperitoneum taking care to avoid the ureter. The descending colon and sigmoid colon were mobilized so that the colon would reach the anterior abdominal wall without tension. Attention was then turned to creation of the diverting loop colostomy. The patient had been previously marked by enterostomal nurse. The skin at this site in the left *lower/upper* quadrant was excised, and dissection was carried down to the fascia. The anterior rectus sheath was incised, the underlying rectus muscle was split, and the posterior rectus sheath was incised to comfortably accommodating two fingers. The proximal sigmoid colon was then brought up through this site for the colostomy.

All laparoscopic trocars were removed. The fascia of the midline trocar site was closed using 0 Vicryl suture (if 12 mm port was placed). The skin of the port sites was closed using 4-0 monofilament absorbable suture followed by the application of Dermabond. The ostomy was then matured in a Brooke fashion, and an appliance was placed over the stoma.

The patient tolerated the procedure well with no immediate complications. A debriefing checklist was completed to share information critical to postoperative care of the patient. The patient was transferred to the recovery room in stable condition.