Right Hemicolectomy

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Indications

- Malignancy
- Ischemia
- Perforation
- Right-sided diverticular disease
- Bleeding from the right colon
- Cecal volvulus

Essential Steps

1. Midline incision.
2. *Explore the abdomen for metastatic disease* (*liver and peritoneum*, *ovaries in female*).
3. Incise the line of Toldt and mobilize the colon toward midline.
4. Identify and protect both ureters and the duodenum.
5. Divide the colon proximally and distally.
6. Ligate the mesenteric vessels.
7. Remove the specimen (tag proximal and distal ends).
8. Perform anastomosis.
9. Check the anastomosis for patency and integrity.
10. Close the abdomen.

Note These Variations

- Stapled or sutured anastomosis
- Choice of stapler and suture
- Ligation of the main trunk vs. right branch of the middle colic artery
- Presence/extent of metastatic disease

Complications

- Injury to the ureter
- Injury to the duodenum
- Anastomotic leak

Template Operative Dictation

Preoperative Diagnosis *Carcinoma/ischemia/perforation/diverticular disease/bleeding of the right colon*

Procedure Right hemicolectomy with primary anastomosis

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J.J. Hoballah et al. (eds.), *Operative Dictations in General and Vascular Surgery*,
DOI 10.1007/978-3-319-44797-1_49

Postoperative Diagnosis Same (*enumerate any metastatic disease found*)

Indications This ____-year-old *male/female* with *abdominal pain/bleeding/obstructive symptoms/recurrent bouts of diverticulitis* was found to have *carcinoma/ischemia/perforation/diverticular disease/bleeding* involving the right colon. *Elective/emergency* resection was indicated.

Description of Procedure *An epidural catheter was placed by anesthesia prior to the start of the operation*. The patient was placed in the supine position. 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. General endotracheal anesthesia was induced. Sequential pneumatic compression devices were placed on the lower extremities. Preoperative antibiotics were given. A Foley catheter and nasogastric tube were placed. The abdomen was prepped and draped in the usual sterile fashion.

A vertical midline incision was made. This was deepened through the subcutaneous tissues and hemostasis was achieved with electrocautery. The linea alba was identified and incised and the peritoneal cavity entered.

The abdomen was explored. *Adhesions were lysed sharply under direct vision with Metzenbaum scissors. A mass was palpated in the ascending colon. The liver, omentum, peritoneum, and ovaries (if present) were inspected for the evidence of metastatic disease. Metastatic disease was noted ____/no metastatic disease was noted.*

The small bowel was inspected and retracted to the left using a moist gauze and self-retaining retractor. Using electrocautery, the colon was freed from its peritoneal attachments along the avascular line of Toldt from the cecum to the hepatic flexure. Additional lateral peritoneal coverings were incised to further mobilize the colon. The dissection was extended across the ileocolic junction and terminal ileum was mobilized. The right ureter was identified and protected, as were the duodenum, right kidney, and gonadal vessels. The hepatic flexure was carefully mobilized by dividing the peritoneum in the hepatorenal fossa.

Points of transection were selected proximally and distally (*specify locations*). The bowel was divided with the linear cutting stapler. The peritoneum overlying the mesentery was then scored with electrocautery, and the ileocolic artery was identified, double ligated with 2-0 silk sutures, and transected. The *right branch/main trunk* of the middle colic and right colic arteries was similarly identified and ligated. The remaining mesentery and all associated nodal tissue was divided and swept down with the specimen. The specimen was removed, proximal and distal ends tagged, and sent to pathology. Hemostasis was checked in the operative field. The two ends of bowel were checked and found to be viable, with excellent blood supply.

If stapled anastomosis: *The proximal and distal segments were brought into apposition and found to lie comfortably next to each other without tension. Two stay sutures of 3-0 silk were placed to approximate the antimesenteric borders of the bowel segments. Enterotomies were made on the antimesenteric corner of the staple line on the ileum and transverse colon and the linear cutting stapler inserted and fired. Hemostasis was checked on the staple line. The enterotomies were then closed with a linear stapler/a two-layer sutured closure of running 3-0 Vicryl and interrupted 3-0 silk Lembert sutures.*

If sutured: *The fat was gently cleared from the terminal 2–3 mm of the bowel ends. The ileum and transverse colon ends of bowel were brought into apposition and found to lie comfortably without excessive tension. A Cheatle slit was made in the antimesenteric border of the ileum to equalize the caliber of the two pieces of bowel. A two-layer hand-sewn end-to-end anastomosis was then constructed using an outer layer of interrupted 3-0 silk Lembert sutures and an inner running layer of 3-0 Vicryl.*

The anastomosis was checked and found to be intact and widely patent. The mesenteric defect was closed with interrupted 3-0 Vicryl. The abdominal cavity was then copiously irrigated and hemostasis was checked.

The fascia was closed with *a running suture of ____/a Smead-Jones closure of interrupted ____*. The skin was closed with *skin staples/subcuticular sutures of____/other*. A debriefing checklist was completed to share information critical to postoperative care of the patient.

The patient tolerated the procedure well and was taken to the postanesthesia care unit in stable condition.

Acknowledgment This chapter was contributed by Simon Roh, M.D. in the previous edition.