Open Sigmoid Resection

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Preference Card

- Number 10-blade scalpel with handle
- Abdominal wall retractor (surgeon preference, Bookwalter, Thompson, Balfour, large or extra-large wound protector)
- Toothed and non-toothed forceps (Adson-Brown, DeBakey, rat tooth, Bonney)
- Curved Metzenbaum and Mayo scissors
- Electrocautery, vessel sealing device
- Kocher, Allis, and Babcock clamps
- Kelly, mosquito hemostats
- Retractors (Richardson, Deaver, Army Navy)
- Needle drivers
- Suction
- Sutures
  - 2.0/3.0 polyglactin
  - 3.0 polydioxanone
  - 4.0 polyglecaprone
  - Skin stapler or 2-0 nonabsorbable sutures for skin closure
- Linear cutting stapler
- Curved cutting stapler (Contour®)
- Circular stapler 28–33 mm
- Flexible sigmoidoscope

Patient Positioning/Operating Room Setup

- Modified lithotomy position (Fig. 13.1) with legs in stirrups to provide easy access to perineal region, thighs are flexed. Patient's buttock slightly off the lower edge of the bed to allow access to the rectum.
- Abduct and secure arms on padded arm boards (max 90°).
- After standard prep, drape both legs, the underbuttock area, and the abdomen.
- The surgeon is positioned to patient's right; the assistant is to the patient's left; the second assistant can stand either to the left of the first assistant or between the patient's legs (Fig. 13.2).
- The scrub nurse is to the right of the surgeon.
- Foley catheter is inserted.

Nodal Points

Type of Incision

- Midline supraumbilical pubic laparotomy (see Fig. 11.3)

Approach

- Obtain controlled entry into the abdomen. If previous midline scar, attempt entry in an area above or below the scar to avoid any underlying adhesions.
- Perform lysis of adhesions if needed to obtain good exposure.
- Position the abdominal wall retractor and explore the abdomen to assess for any undiagnosed pathology.
- Culture any fluid if present.
- Protect and pack the small bowel using moist towels to the right of abdomen.

Dissection, Resection, and Reconstruction Steps

Dissection, resection, and reconstruction steps are similar to the laparoscopic approach, as described in Chap. 12.

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R. J. Rosenthal et al. (eds.), *Mental Conditioning to Perform Common Operations in General Surgery Training*,
https://doi.org/10.1007/978-3-319-91164-9_13

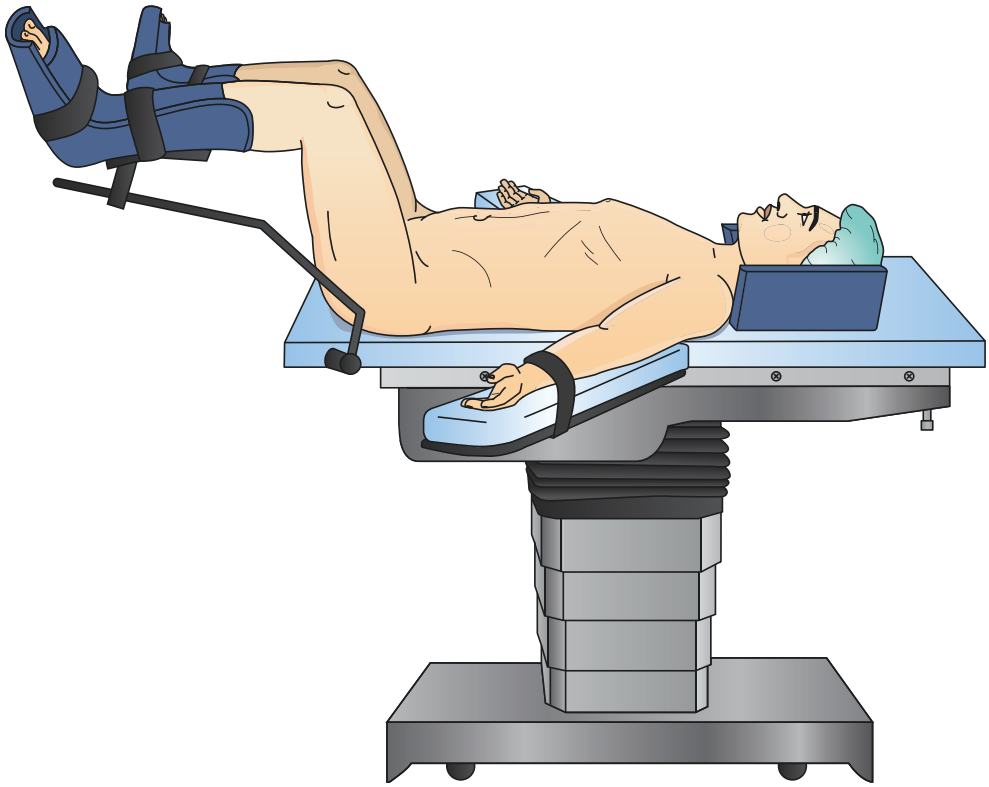

Fig. 13.1 Modified lithotomy position with left arm abducted

The main steps are summarized as follows:

- Mobilize the sigmoid colon.
- Isolate and divide the inferior mesenteric artery and vein.
- Transect the colon distal to the lesion.
- Complete the division of the mesosigmoid.
- Transect the colon proximal to the lesion.
- Create an end-to-end colorectal anastomosis with a transanal circular stapler.
- Flexible sigmoidoscopy air leak test of the anastomosis.

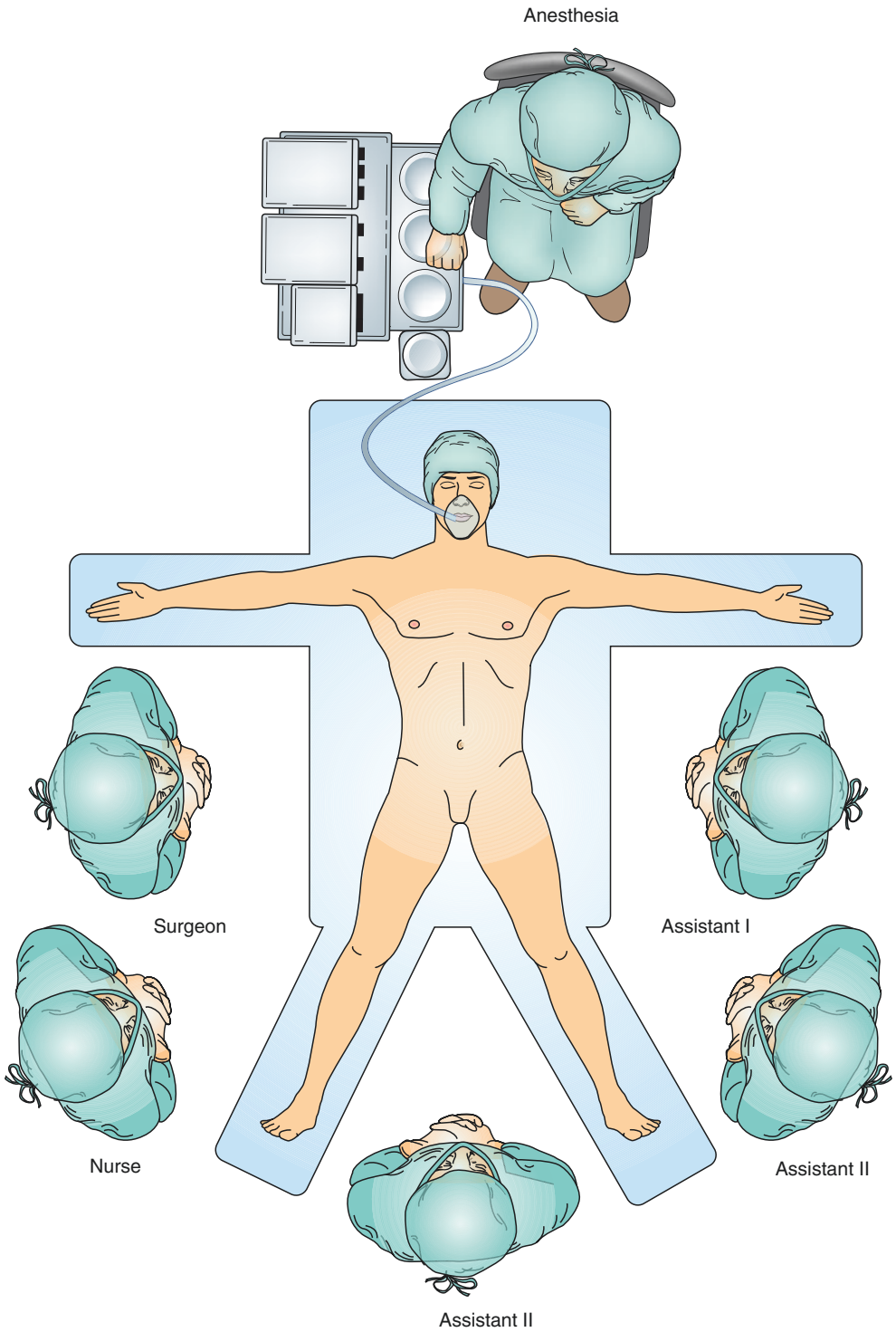

Fig. 13.2 Operating room setup. *ANS* anesthesiologist, *S* surgeon, *AI* first assistant, *AII* second assistant, *N* scrub nurse

Access Reader Checklist Appendix

☑ READER CHECKLIST
Open Sigmoid Resection

✓ PREFERENCE CARD

►**Instruments**
__# 10-blade scalpel with handle
__Abdominal wall retractor (surgeon preference: Bookwalter, Thompson, Balfour, large or extra-large wound protector)
__Toothed and non-toothed forceps (Adson Brown, DeBackey, Rat tooth, Bonney)
__Curved Metzembaum and Mayo scissors
__Electrocautery, vessel sealing device
__Kocher, Allis and Babcock clamps
__Kelly, Mosquito hemostats
__Retractors (Richardson, Deaver, Army Navy)
__Needle drivers
__Suction
__Linear cutting stapler
__Curved cutting stapler (Contour⊠)
__Circular stapler 28-33mm
__Flexible sigmoidoscope

►Sutures
__2.0/3.0 polyglactin
__3.0 polydioxanone
__4.0 polyglecaprone
__Skin stapler or 2-0 non-absorbable sutures for skin closure

✓ PATIENT POSITIONING/ OPERATING ROOM SETUP

►Patient Positioning
__Modified lithotomy position with legs in stirrups to provide easy access to perineal region, thighs are flexed.
__Patient's buttock slightly off the lower edge of the bed to allow access to the rectum
__Abduct and secure arms on padded arm boards (max 90⊠)
__After standard prep, drape both legs, the underbuttock area and abdomen

►Operating Room Setup
__Surgeon is positioned to patient's right
__Assistant positioned to patient's left
__Second assistant stands either to left of first assistant or between patient's legs
__Scrub nurse is to right of surgeon
__Foley catheter inserted

✓ NODAL POINTS

►**Type of Incision**
__Midline supraumbilical pubic laparotomy

►**Approach**
__Obtain controlled entry into abdomen. If previous midline scar, attempt entry in area above or below scar to avoid any underlying adhesions
__Perform lysis of adhesions, if needed, to obtain good exposure
__Position abdominal wall retractor and explore abdomen to assess for any undiagnosed pathology
__Culture any fluid if present
__Protect and pack small bowel using moist towels to right of abdomen

►**Dissection.Resection and Reconstruction Steps**
__Dissection, resection, and reconstruction steps similar to laparoscopic approach, as described in Chapter 12

Main steps:
__Mobilize sigmoid colon
__Isolate and divide inferior mesenteric artery and vein
__Transect colon distal to lesion
__Complete division of mesosigmoid
__Transect colon proximal to lesion
__Create end-to-end colorectal anastomosis with transanal circular stapler
__Flexible sigmoidoscopy air-leak test of anastomosis

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