

Laparoscopic colorectal resection for carcinoma

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- 56 year old female
- C/O –Bleeding PR; 3 months

- Bleeding PR

Fresh

Mixed with stools

Small quantities

- Alteration of bowel habits?
10 times a day
- Volume?
Small quantities mixed with blood & mucus
- Is there any sense of incomplete evacuation?
Yes

- Diagnosis?

- Differential diagnosis?

- Systemic inquiry
 - Effects of the pathology-on GIT/ other systems
 - R/V of other systems

- History-cont

- Examination

General

Abdomen

PR

- Confirmation-colonoscopy and biopsy
Moderately differentiated adenocarcinoma
- Staging
(TRUS)
(MRI)
CT abdomen & pelvis

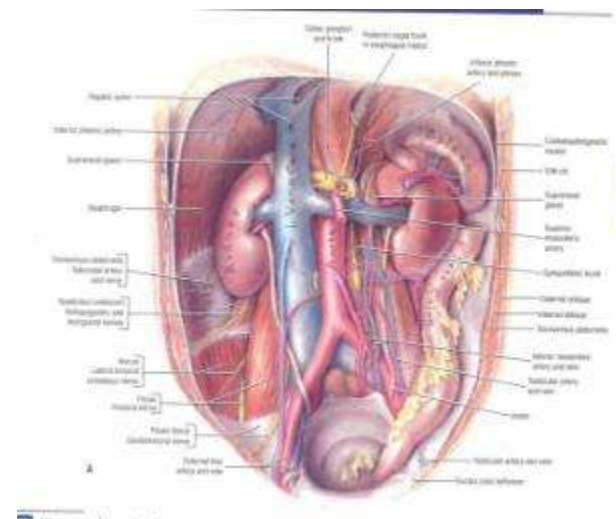
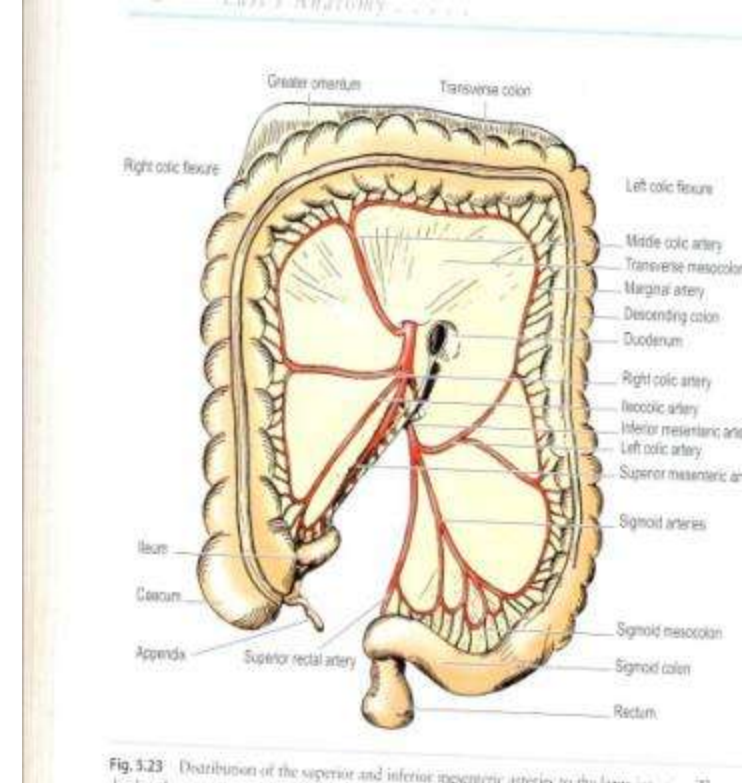
- Down staging by chemoradiation

- Laparoscopic assisted low anterior resection

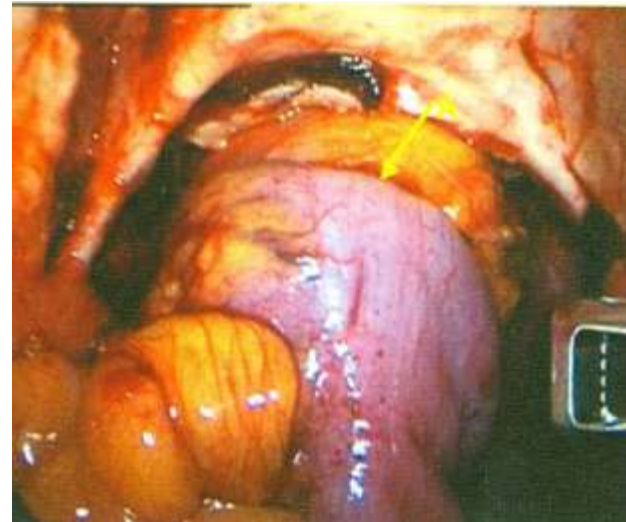
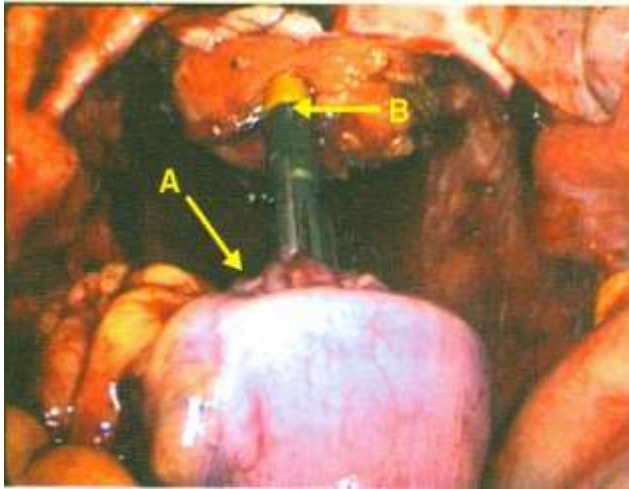
- Supine, Trendelenburg position
- Placing legs
- NG tube, Indwelling catheter
- Camera port, 4 working ports



- Site of lesion identified
- Medial to lateral dissection
- Ligation and division of IMA
- Mobilization of splenic flexure
- TME
- Division of lower rectum- stapler
- Left IF mini incision
- Division of sigmoid



- Stapled intracorporeal anastomosis



Post operative recovery

- Feeding-liquids, next day
Semi solids-3rd day
- Out of bed-2nd day
- Catheter off-6th day
- Discharged on day 7

Expectations

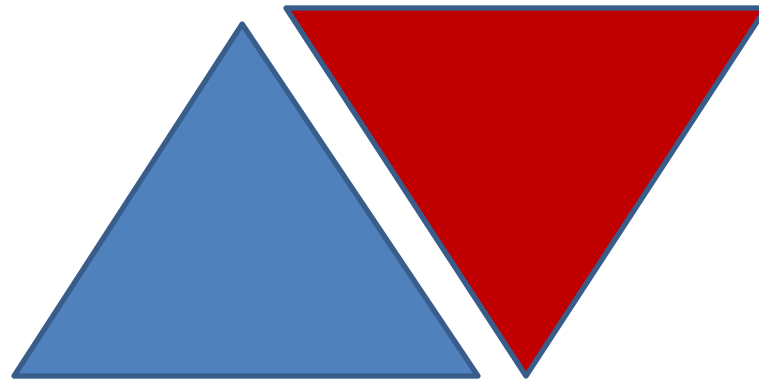
- Less analgesic requirement
- Early return of bowel function-early feeding
- Early mobilization
- Early discharge
- Less chance of adhesion formation
- Reduced incidence of early/ late wound dehiscence



Laparoscopy assisted abdomino – perineal resection



Significance of Morbidity due to access



morbidity due
to dissection

Problems

- Port site recurrences
- Oncological resection
- Iatrogenic injuries
- Operating time
- Conversion



Learning curve

- Development curve
- Learning curve

Challenges -mobilization

- Retracting the bowel in a confined space
- Looking at the bowel in unfamiliar angles
- Surgery involves more than one quadrant of abdomen
- Vascular control
- and hemostasis
- Display and protection
- of related anatomy

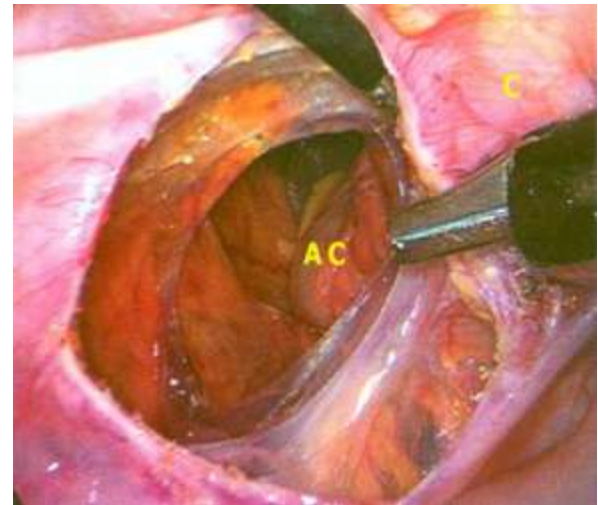
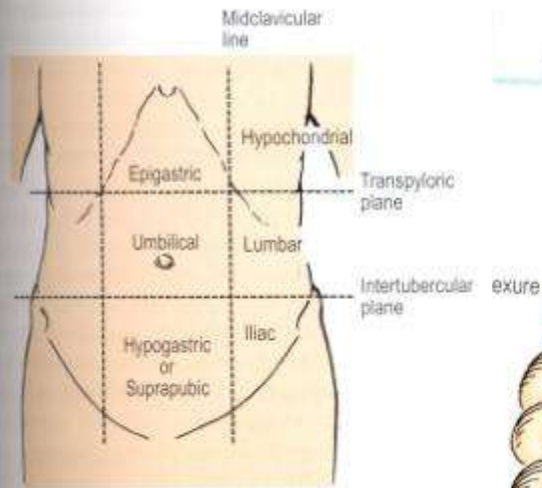


Fig. 5.1). The vertical line on each side corresponds



Last's Anatomy

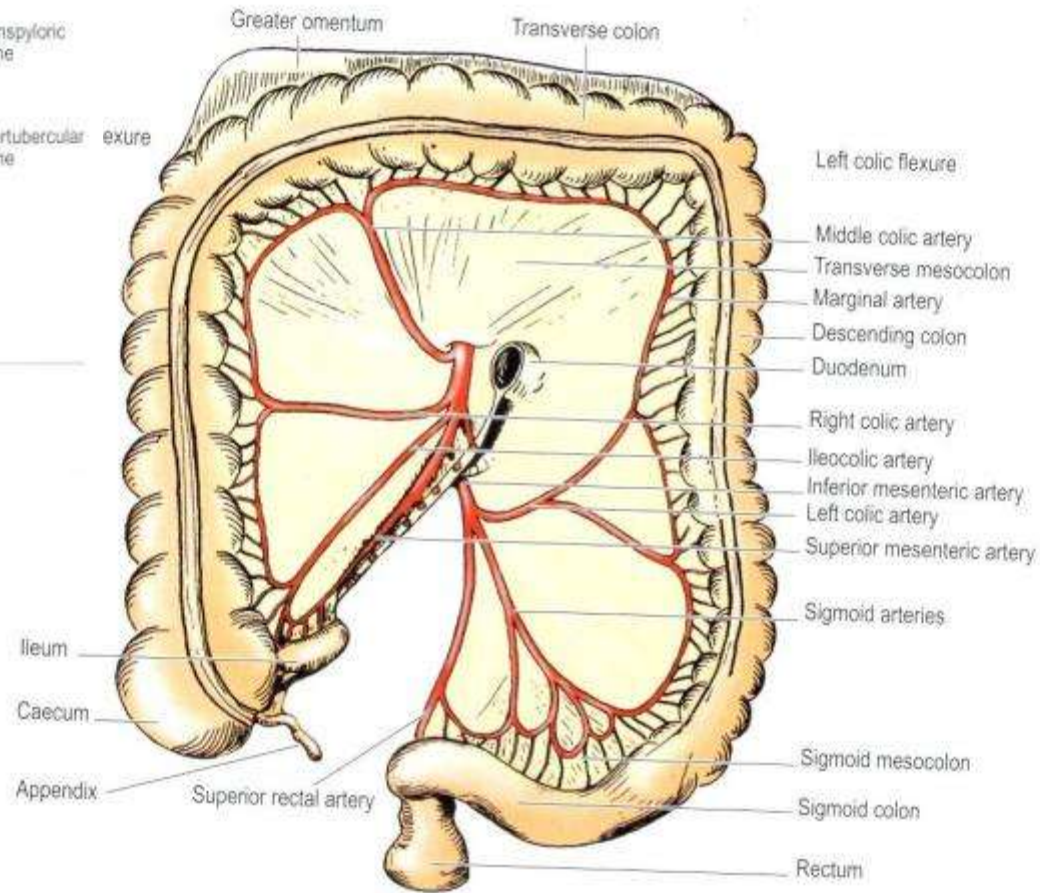
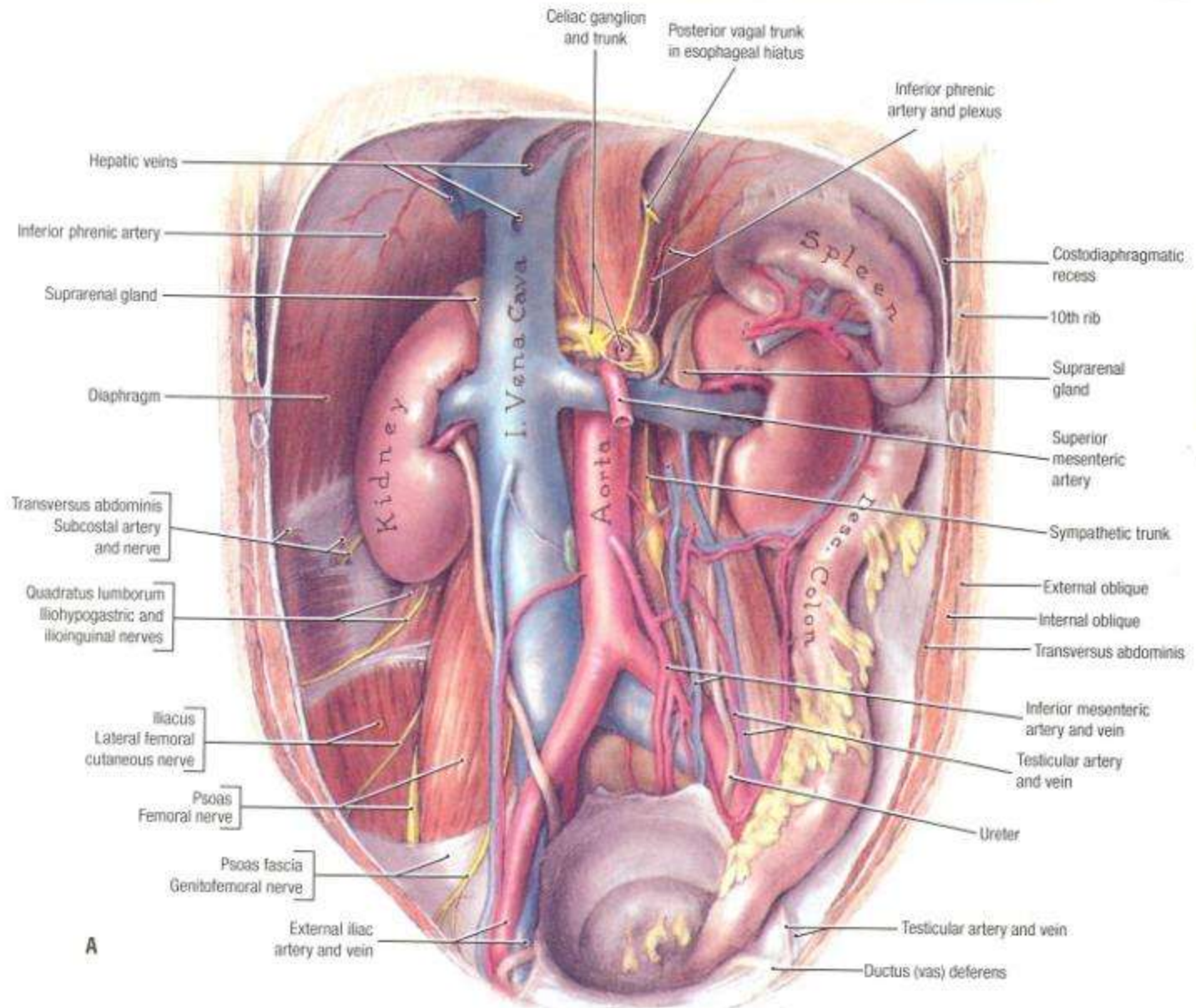


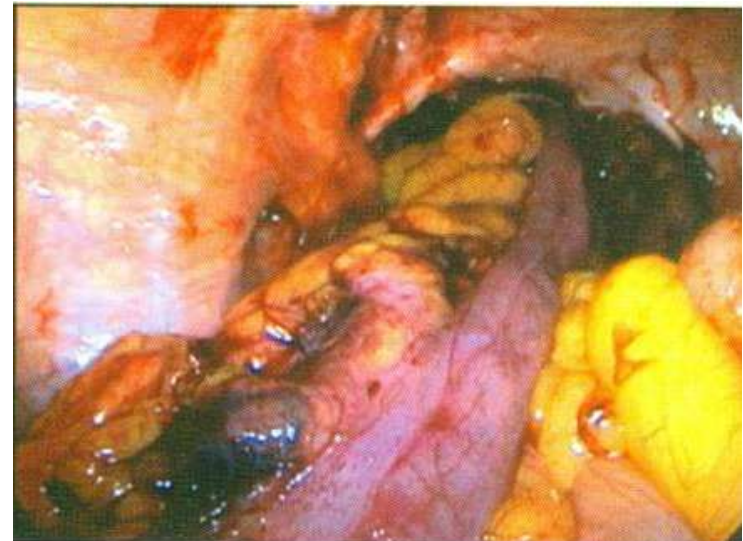
Fig. 5.23 Distribution of the superior and inferior mesenteric arteries to the large intestine



A

Challenges-lack of tactile sensation

- Identifying resection margins
 - Intra operative colonoscopy/ sigmoidoscopy
 - Marking at preoperative colonoscopy/sigmoidoscopy
 - Using a hand port

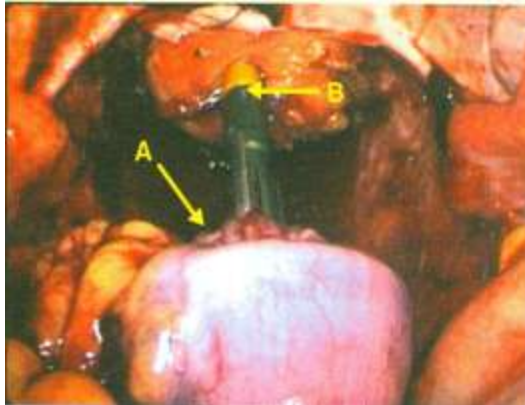
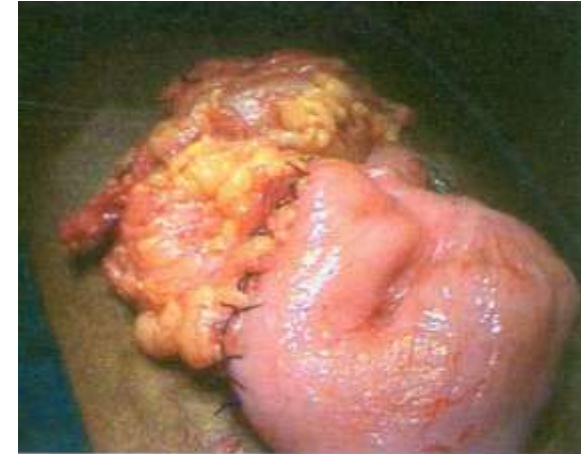


Challenges

- Removal of the resected specimen

Challenges-reconstruction

- Extracorporeal anastomosis
 - Right hemicolectomy
 - Sigmoid colectomy
- Intra corporeal stapled anastomosis
 - Anterior resection



Levels of difficulty

- Right hemicolectomy
- Sigmoid colectomy
- APR
- Anterior resection
- Total proctocolectomy

Overcoming challenges

- Sound understanding of anatomy
- Experience in open colorectal surgery
- Skilled in laparoscopy

Dissection

Suturing

Knot tying

Current consensus-(surgical clinics of North America,Vol 89 2009)

- Laparoscopic assisted colonic resections
 - Feasible
 - Oncologically safe
 - Reduces morbidity
 - Long term recurrence and survival-comparable with open surgery
- Laparoscopic resections for Ca rectum
 - Higher incidence of
 - Involvement of resection margin
 - Port site recurrence