Pattern of Spread from Colorectal Cancer

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Colon cancer

Local extension is to the relevant adjacent structures - e.g. the peritoneum, retro peritoneum, ileum, stomach and spleen.

The relationship between the peritoneum and the colon -

1. Cecum - peritonealized
2. Ascending colon - anterior wall covered with peritoneum, posterior wall retroperitoneal
3. Transverse colon - suspended in mesocolon
4. Descending colon - anterior wall covered with peritoneum, posterior wall retroperitoneal
5. Sigmoid colon – peritonealized

Nodal staging

Nodal spread depends on the site of involvement spreading from epicolic to paracolic to regional nodes

Cecum: Pericolic, anterior and posterior cecal, ileocolic, right colic

Ascending colon: Pericolic, ileocolic, right colic, middle colic

Hepatic flexure: Pericolic, right colic, middle colic

Transverse colon: Pericolic, middle colic

Splenic flexure: Pericolic, middle colic, left colic, inferior mesenteric

Descending: Pericolic, left colic, inferior mesenteric, sigmoid

Sigmoid: Pericolic, inferior mesenteric, superior rectal, sigmoidal, sigmoidomesenteric

Rectosigmoid: Pericolic, inferior mesenteric, superior rectal, middle rectal

Distant metastases

The sites include the liver (28%), lungs (12%), bones and occasionally the brain.

Rectal cancer
Local extension is to the peritoneum, retroperitoneum, bladder, prostate.

Nodal spread in rectal cancer is to the mesorectal nodes and then:

upper ⅓ to superior rectal to inferior mesenteric to portal and caval nodes
mid ⅓ to pelvic and internal iliac nodes
lower ⅓ to inguinal nodes and possibly presacral nodes

Distant metastases
upper ⅓ to the liver, bones
mid ⅓ to lungs, bones
lower ⅓ to lungs, bones

Paraaortic and inguinal nodes are considered metastases in rectal cancer.

Recurrence

In a retrospective study of 418 patients (1) 100% of recurrence in rectal cancer occurred within 10 years (most commonly local recurrence, and less likely hepatic and/or pulmonary metastases) while 100% of recurrence in colon cancer occurred in 4 years (most commonly hepatic metastases, with pulmonary metastases noted at a greater interval) post initial surgery. In a retrospective study of 1838 patients (2) 8.5% had local recurrence (6.1% for colon cancer, 11.3% in rectal cancer) with almost 60% presenting in the first 2 years and 82.4% within 3 years.

References