Locoregional Recurrence patterns in colon cancer surgery

Prof. Aviram Nissan
Dr. Ron Shapiro
Alma Kamar
Surgery C, Sheba Medical Center

Background

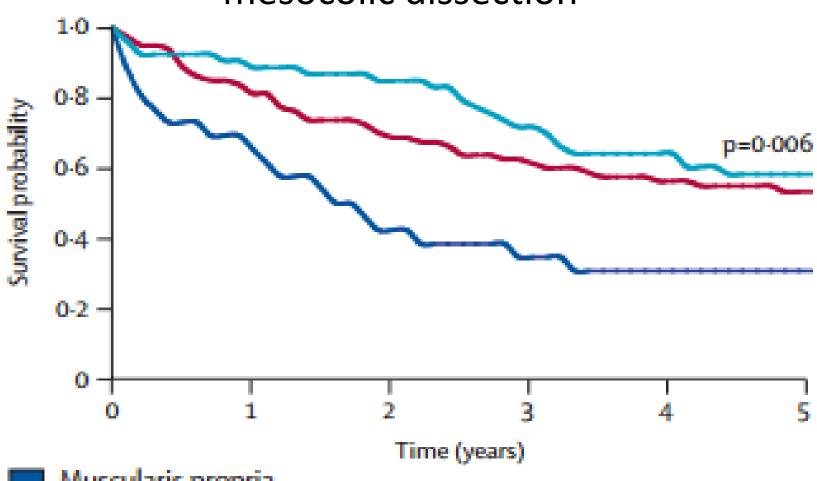
Colon Cancer is a surgical curable disease

Survival of 90% for localized disease

Based on data from SEER 18 2005-2011

 15% will develop Peritoneal Metastases-Cytoreductive Surgery and HIPEC

Survival curves according to the plane of mesocolic dissection



- Muscularis propria
- Intramesocolic
- Mesocolic

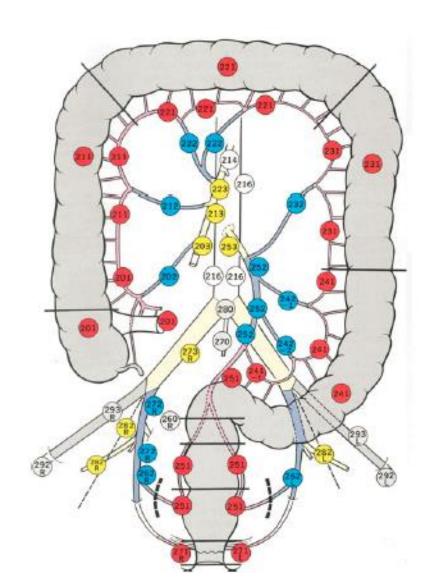
Survival Curves according to LN # OS 5 Yr (mos) OS 100 # LN Cumulative Survival (%) 90 45% 45* 80 1-7 77 66% 70 8-14 99* 70% 60 ≥15 131* 78% 50 40 30 20 10 0 3 5 8 9 0 10 11 12 13 Survival (Years)

Chen S, Bilchik A, Annals of Surgery 2006: 244

Lymphadenectomy in colon cancer

Japanese LN mapping for colorectal cancer

- N1- Pericolic nodes
- N2- Intermediate nodes
- N3- Main nodes



Colon Cancer 4-Year DFS Rates

UICC-Stage	Standard surgery	Extended
	90%	100%
11	78%	92%
III	67%	73%
all stages	76%	86%

Bertelsen et al. Lancet Oncol. 2015

Colon Cancer Local Recurrence

 10y LR higher for right colectomy than left colectomy 14.7% vs. 5.2%

MRC CLASICC Trial. Br J Surg. 2013

- What is the explanation for the difference?
 - Inadequate lymphadenectomy?
 - Poor planes of mesenteric resection?
 - Tumor biology?

Aim

- To characterize locoregional recurrence patterns of colon cancers
 - Perianastomotic
 - Mesenteric/nodal
 - Retroperitoneal
 - Peritoneal

Bowne et al. Dis Colon Rectum 2005

Compare right side recurrences to left side

Methods

- Patients will be identified from the HIPEC registry- 450 patients → 200 colon cancer
- Inclusion:
 - Primary colon cancer
 - curative surgery at presentation
- Exclusion:
 - Distant metastasis at presentation
 - Synchronous and metachronous tumors
 - Hereditary cancers

Data collected

- Demographics
- Primary tumor characteristics
- Adjuvant chemotherapy
- Time interval from primary surgery to recurrence
- Recurrence patterns
 - 1. Perianastomotic
 - 2. Mesenteric/nodal
 - 3. Retroperitoneal
 - 4. Peritoneal
- Survival outcomes