The Role of Peritonectomy in Colorectal Cancer

A New Standard of Care for Stage IV Disease

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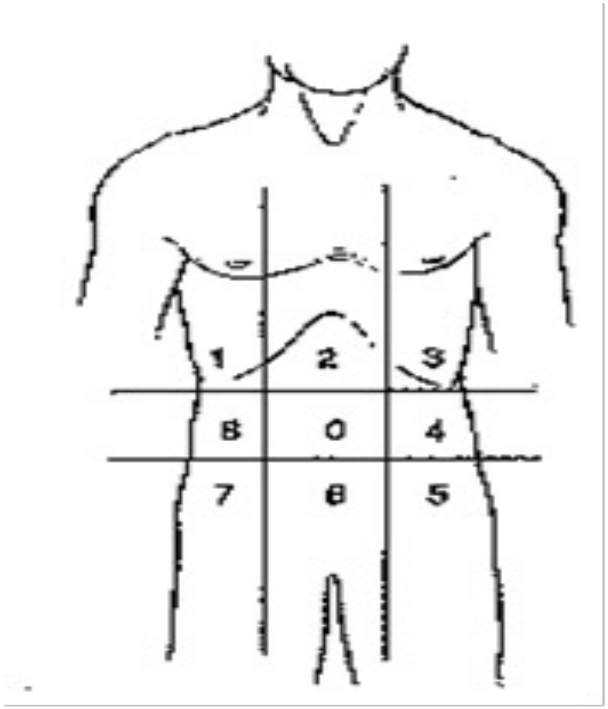
Peritonectomy : Sugarbaker 1980s

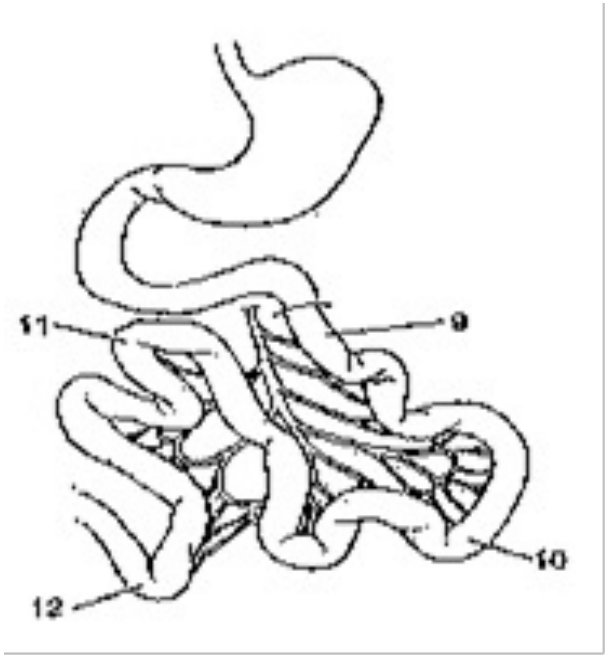
- A treatment for Stage IV CRC - peritoneal mets
- Cytoreductive Surgery (CRS) – 4-12 hours
  - Multiple visceral resections and peritoneal excision
  - Aims to excise all visible/palpable cancer
- Hyperthermic Intraperitoneal Early Chemo (HIPEC)
  - Intraoperative chemo at 42C for 90 min (“Hot chemo”)
  - Aims to treat residual microscopic disease

Peritonectomy for CRC

- CRC is 4th most common cancer related death world wide
- Peritoneum is 3rd most common site (20%) for CRC mets site and has the worst prognosis of CRC metastatic sites
- Traditionally palliated - considered a systemic disease
- We now view peritoneal mets as locoregional disease
  - Analogous to liver mets
- Paradigm shift – aggressive surgery for selected patients

Peritoneal Cancer Index (PCI)





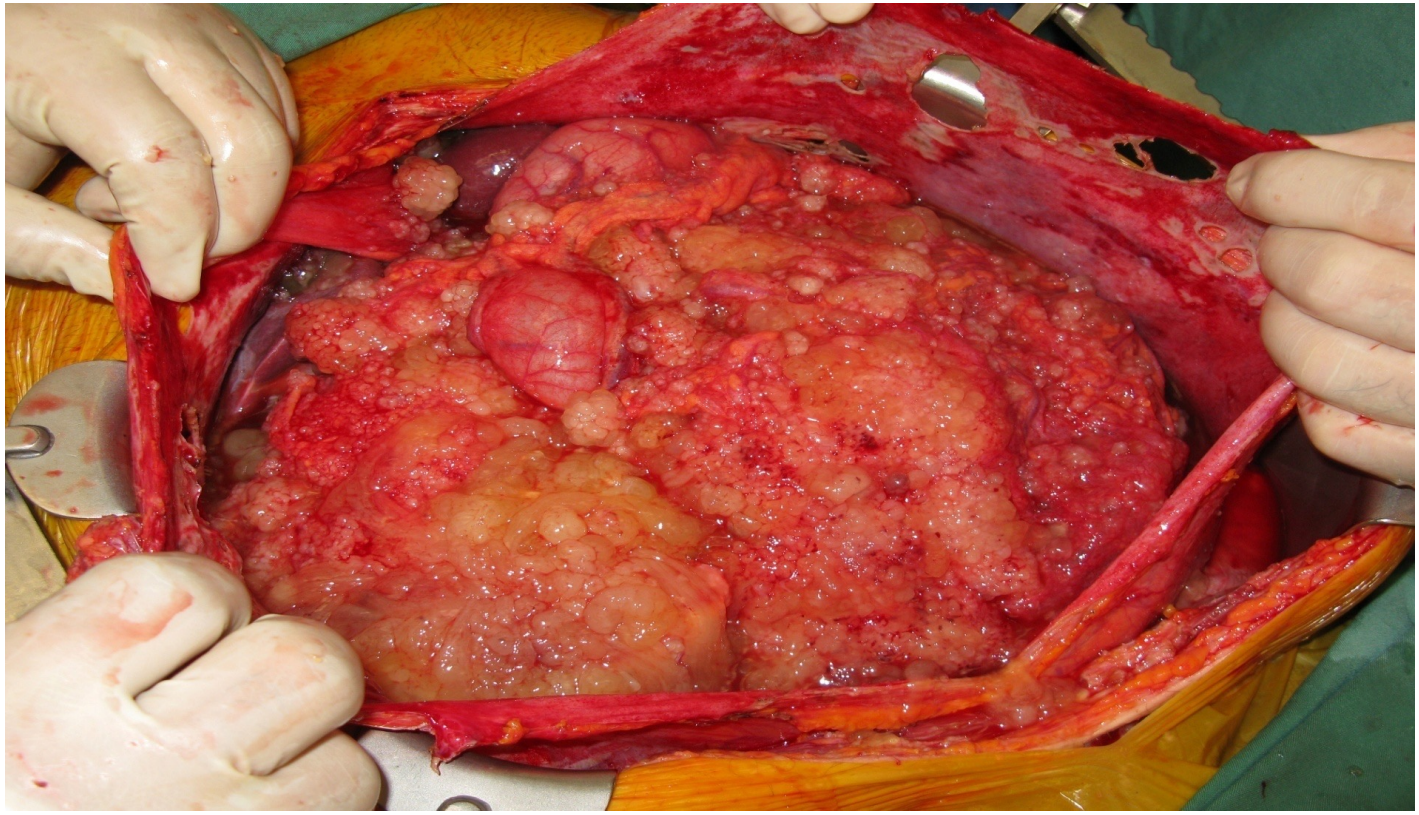
Patient Selection

- PCI 15 or less (10 or less for redo)
- Surgically completely resectable – curative intent – NOT palliative
- Nil unresectable distant mets
- Controlled primary (by chemo, or resected)
- Resectable liver or lung mets
- ECOG 1
- Absence of major comorbidity

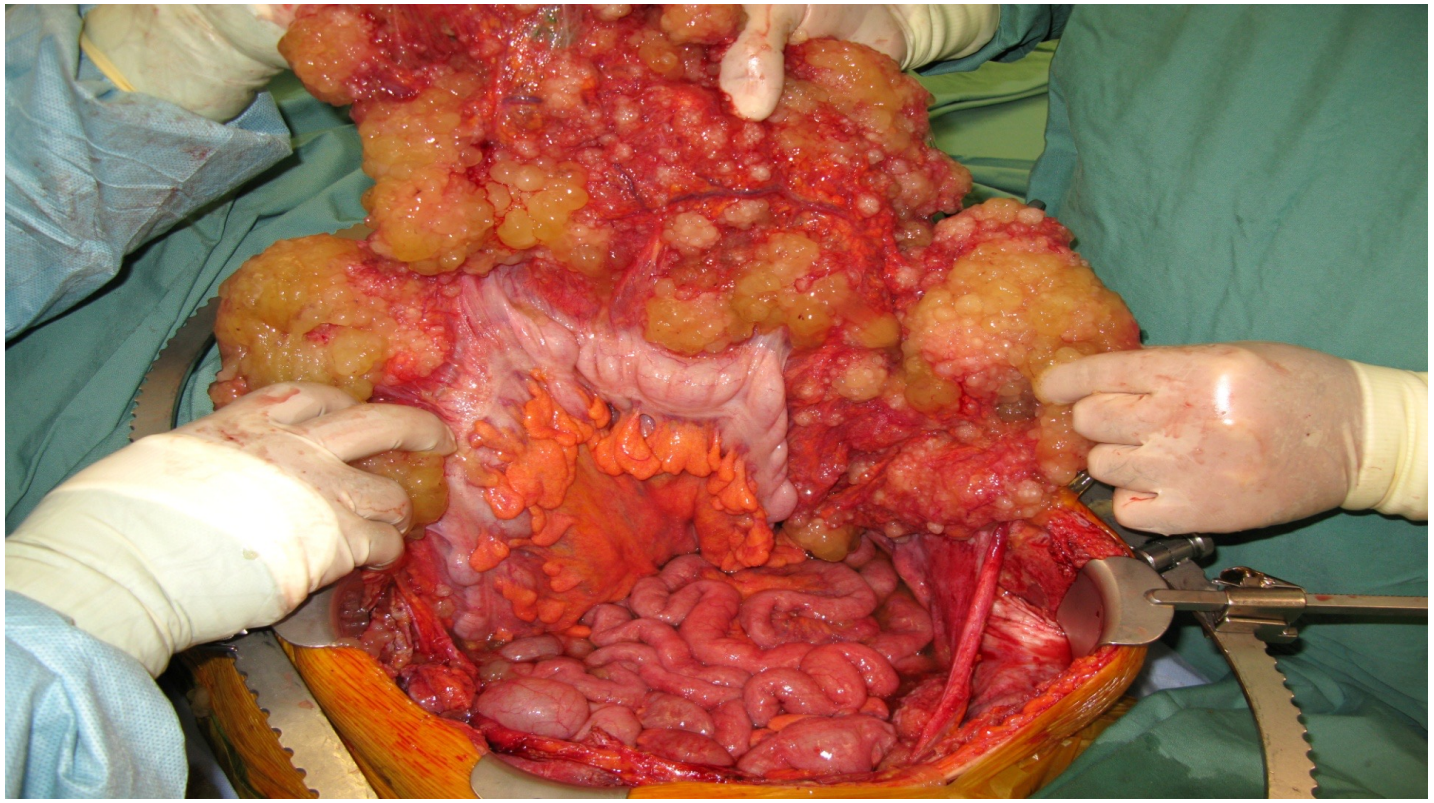
Red Flags

- Unresectable distant mets – bone, brain, mediastinum
- Diffuse SB, mesenteric/root, portal structures, retro/extraperitoneal invasion, carcinomatosis
- Need for Whiples, oesophagectomy, IVC recon, exenteration
- Extensive nodal disease
- Rapidly progressive on chemo
- Signet cell – esp HG, Poorly diff, BRAF+
- Age, ECOG 2+, Major comorbidities
- PCI>15

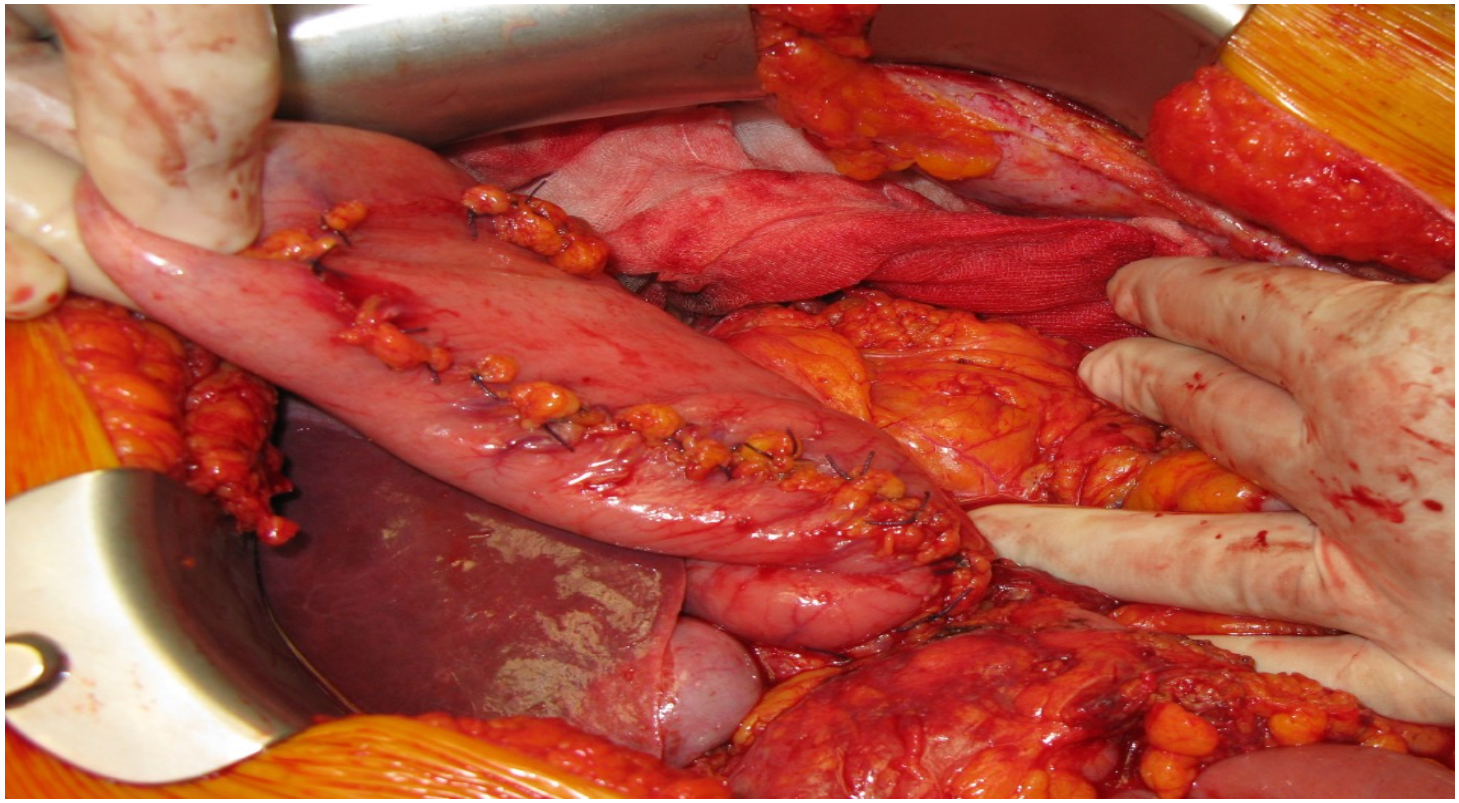
On the inside……



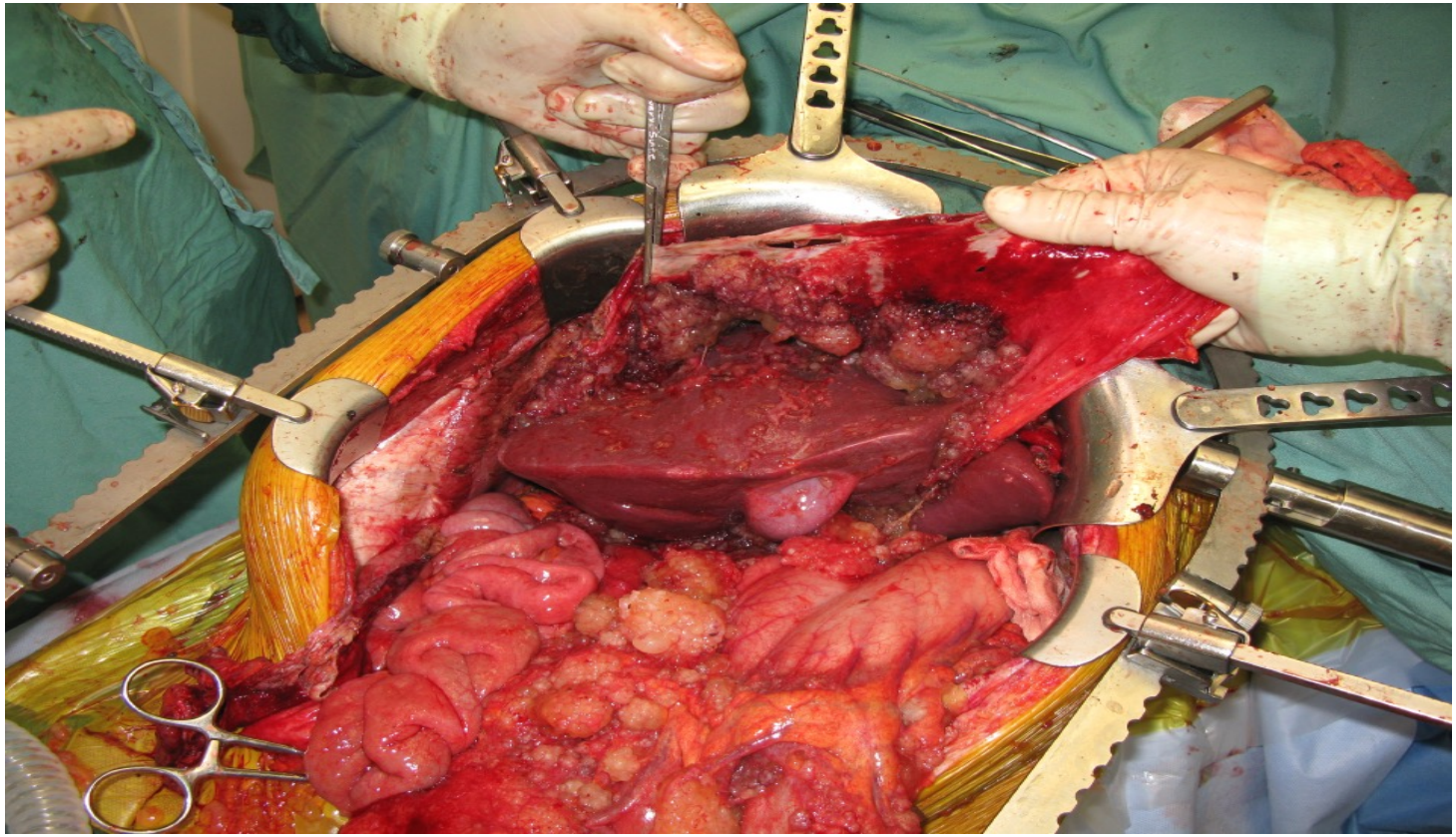
Omentectomy and Splenectomy



Post Omentectomy



Liver and RUQ



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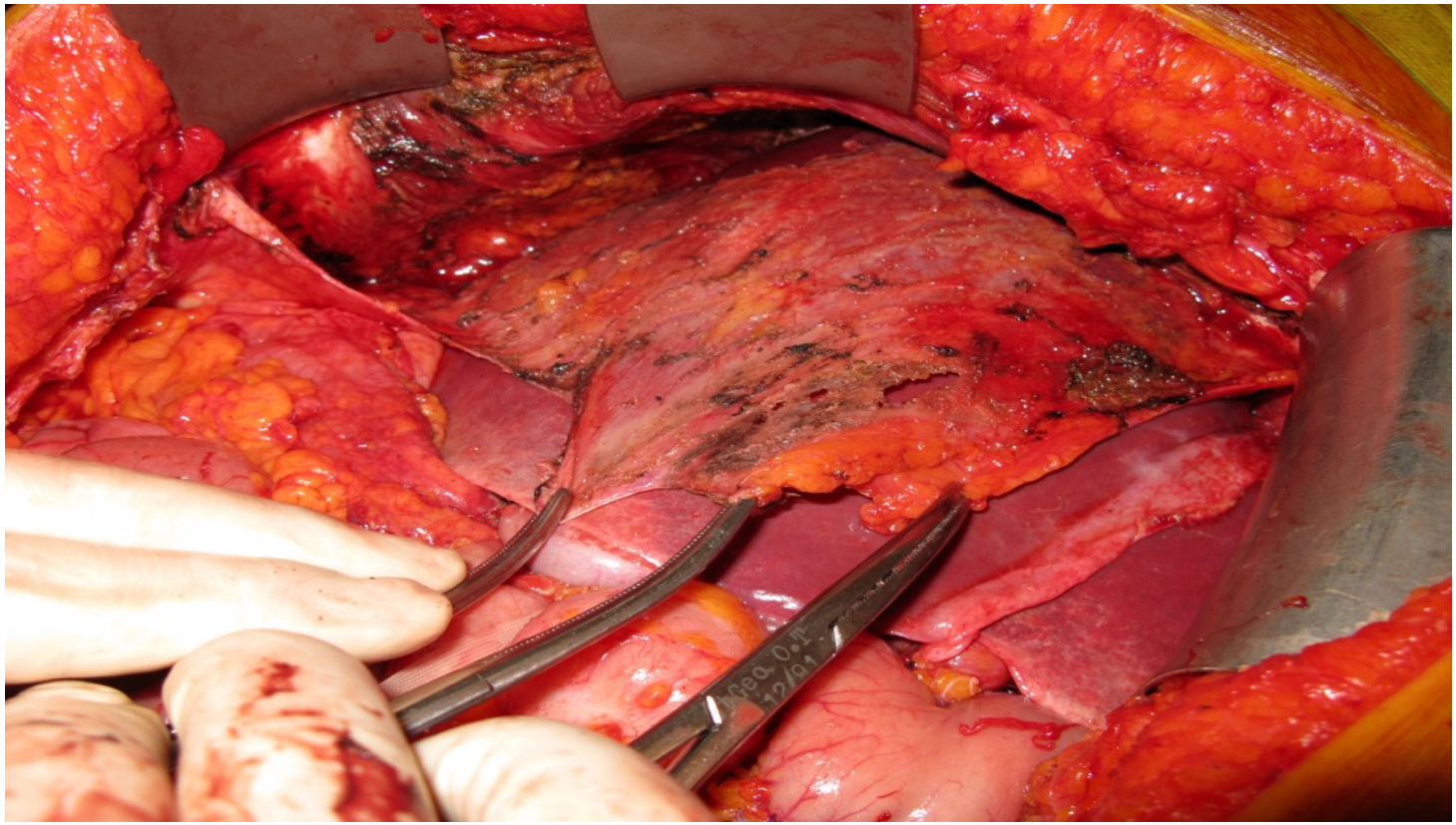
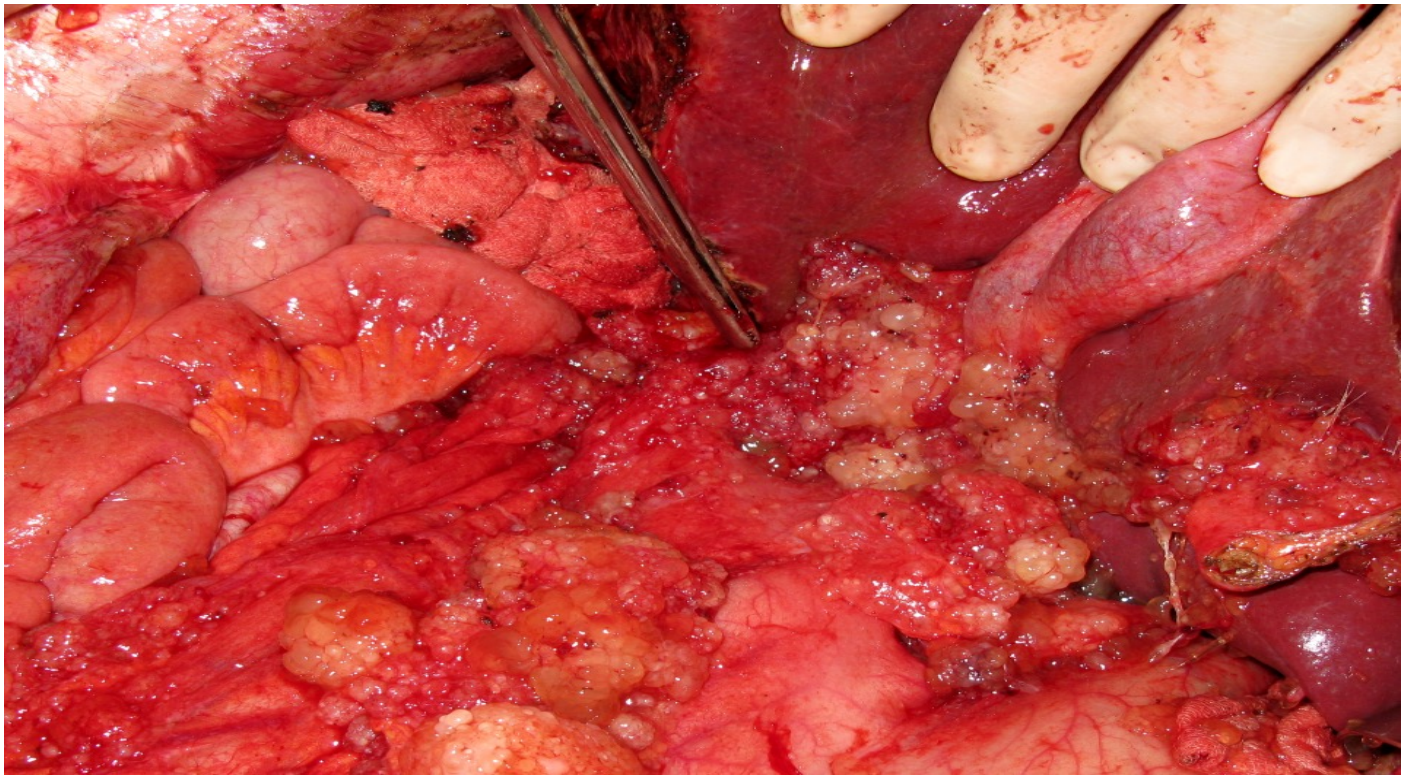
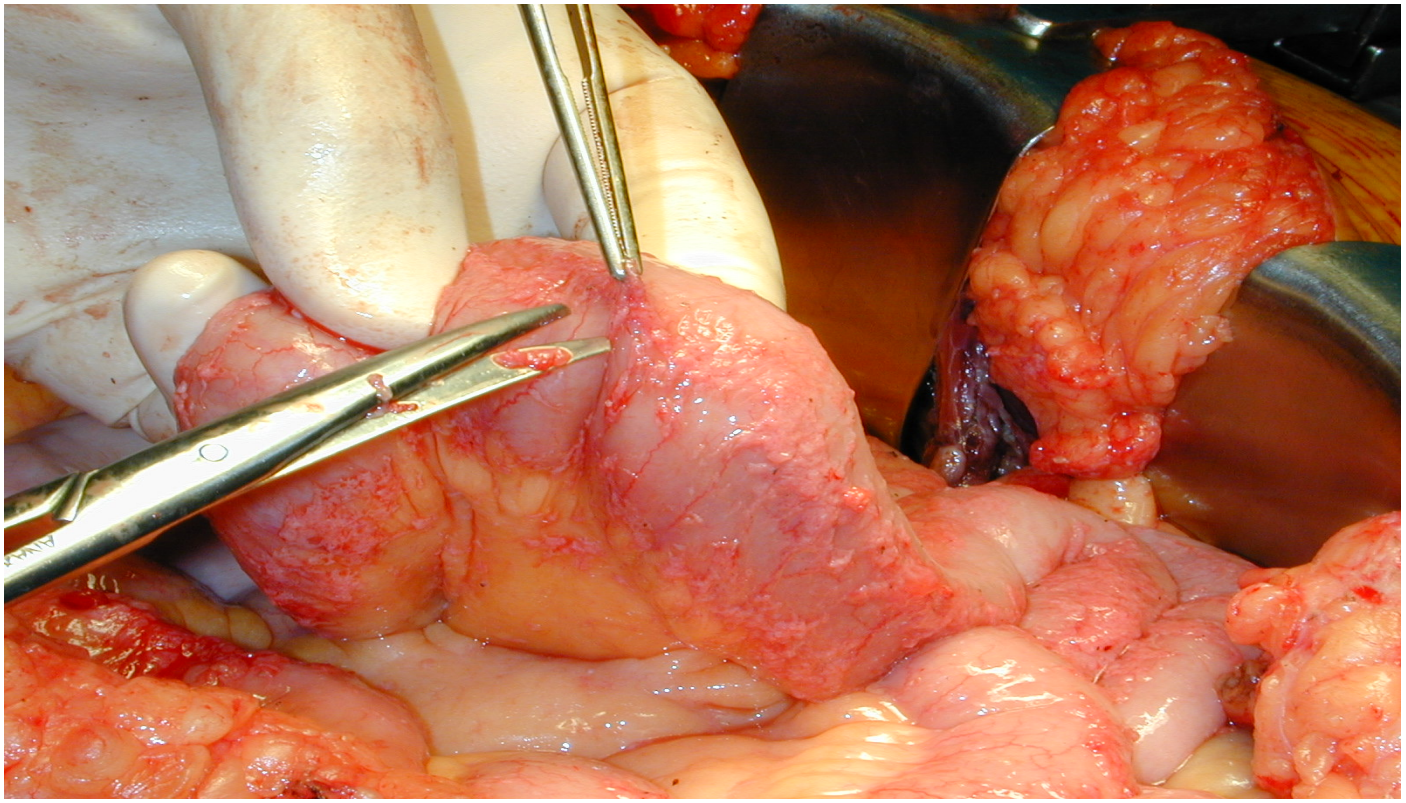


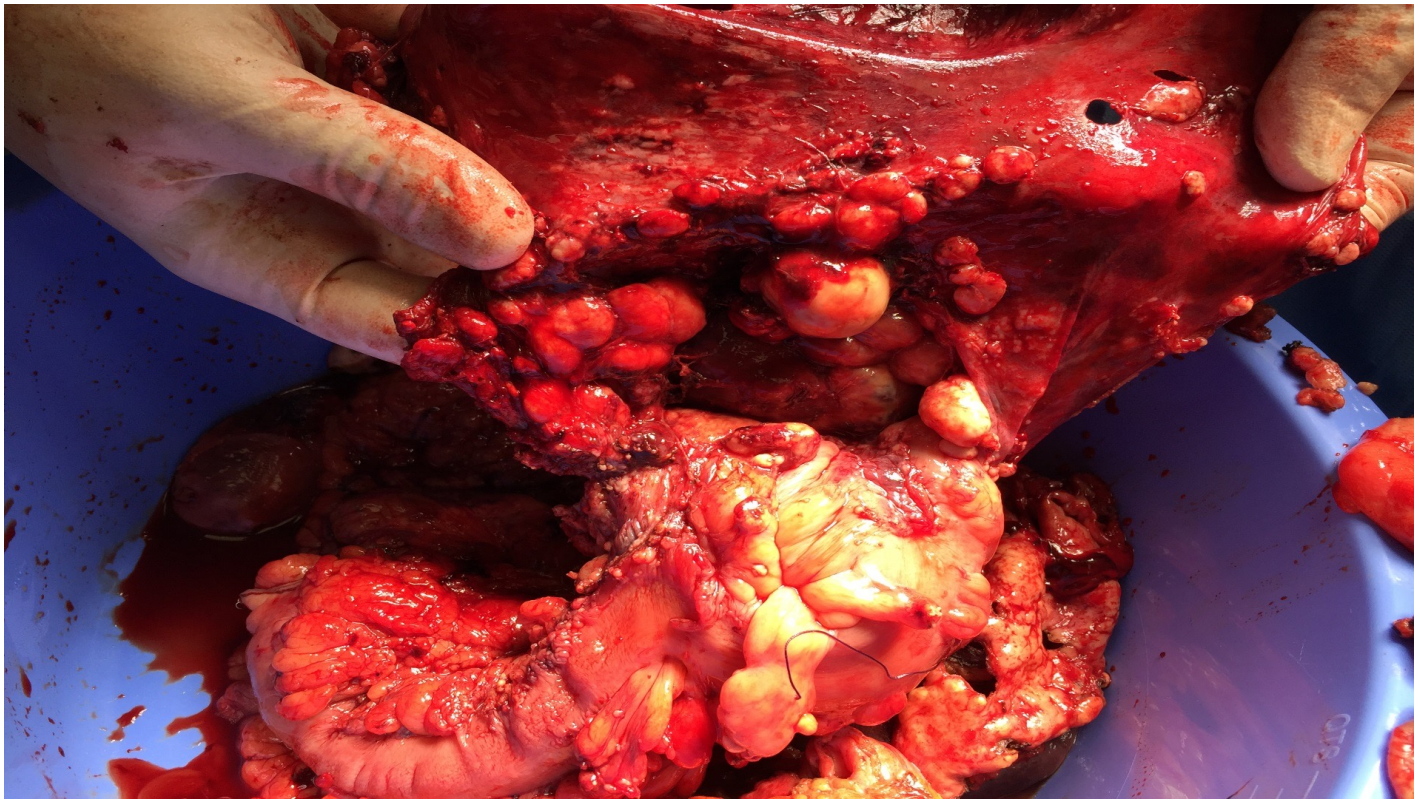
Visceral Peritonectomy



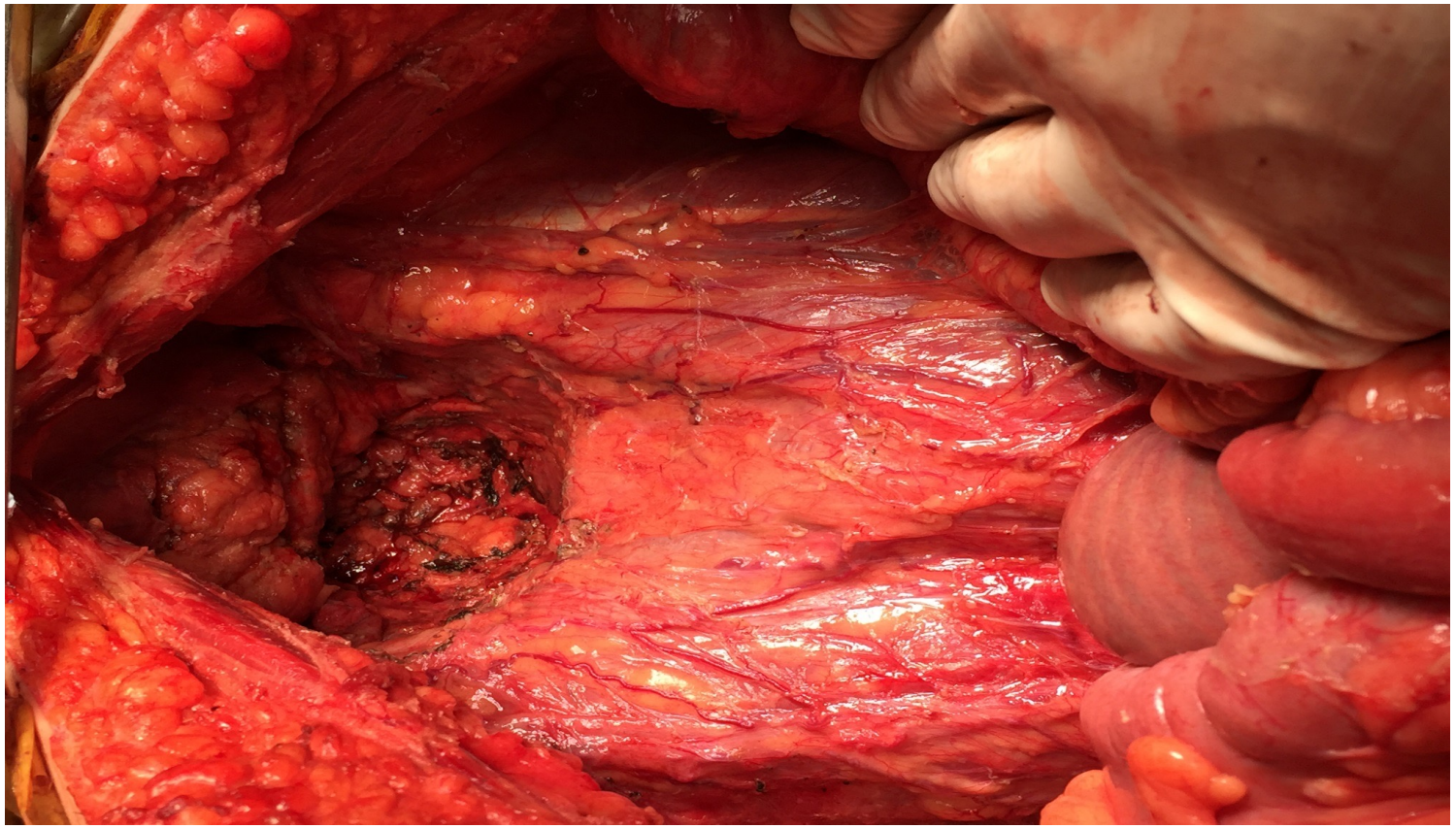
Clearance off Small Bowel



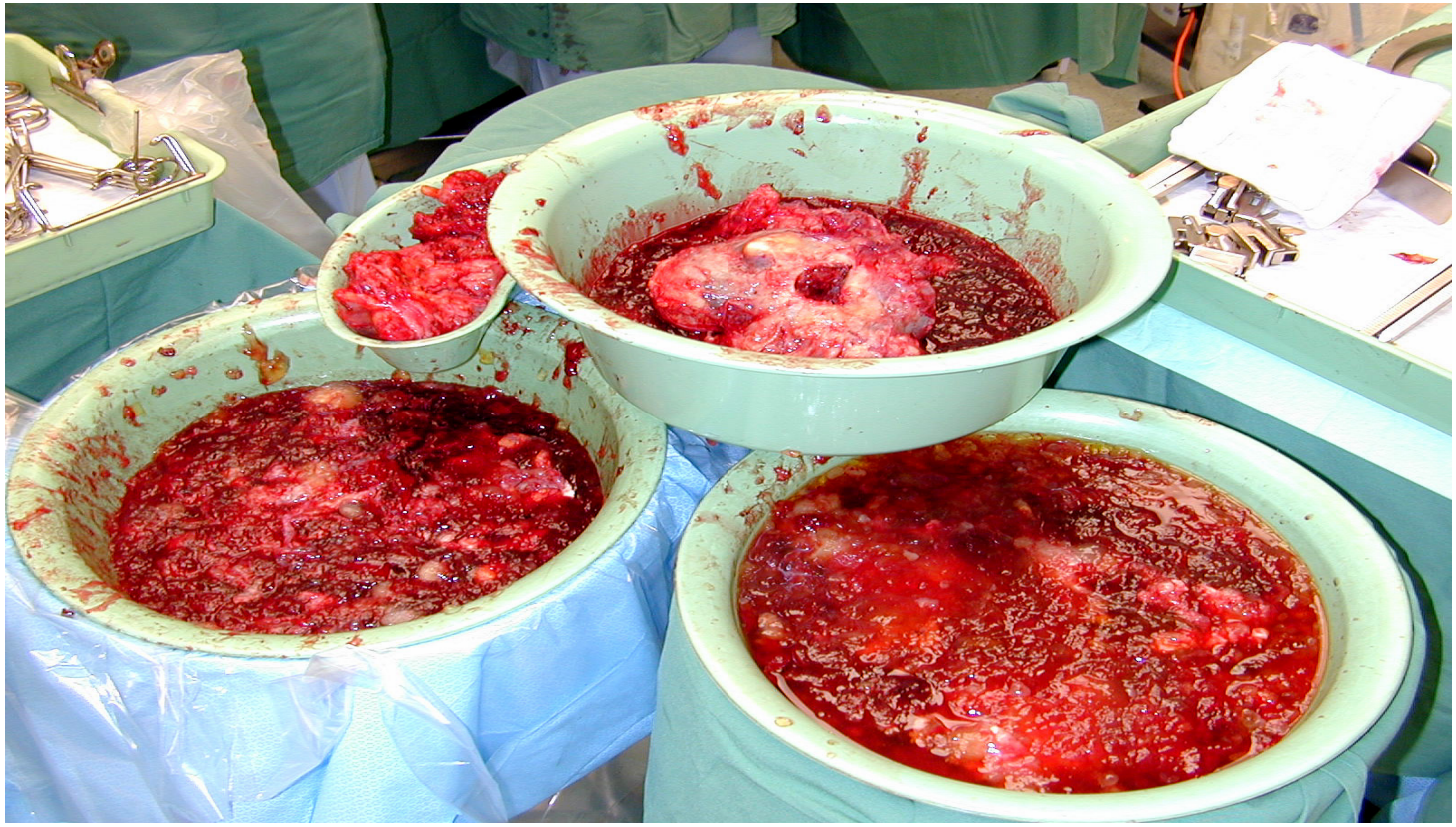
Anterior resection with pelvic peritoneum



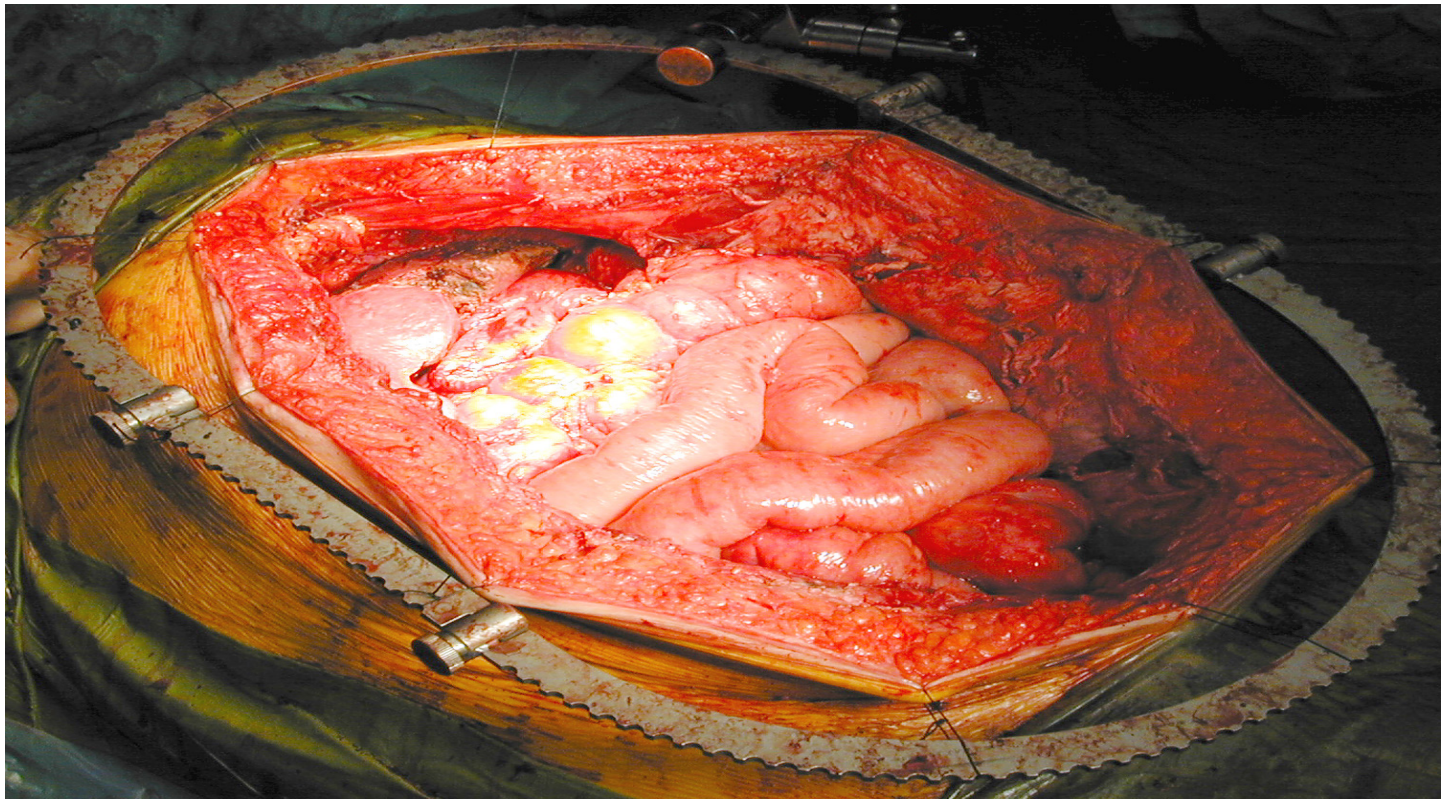
Stripped Pelvis



A Hard Day's Work



HIPEC



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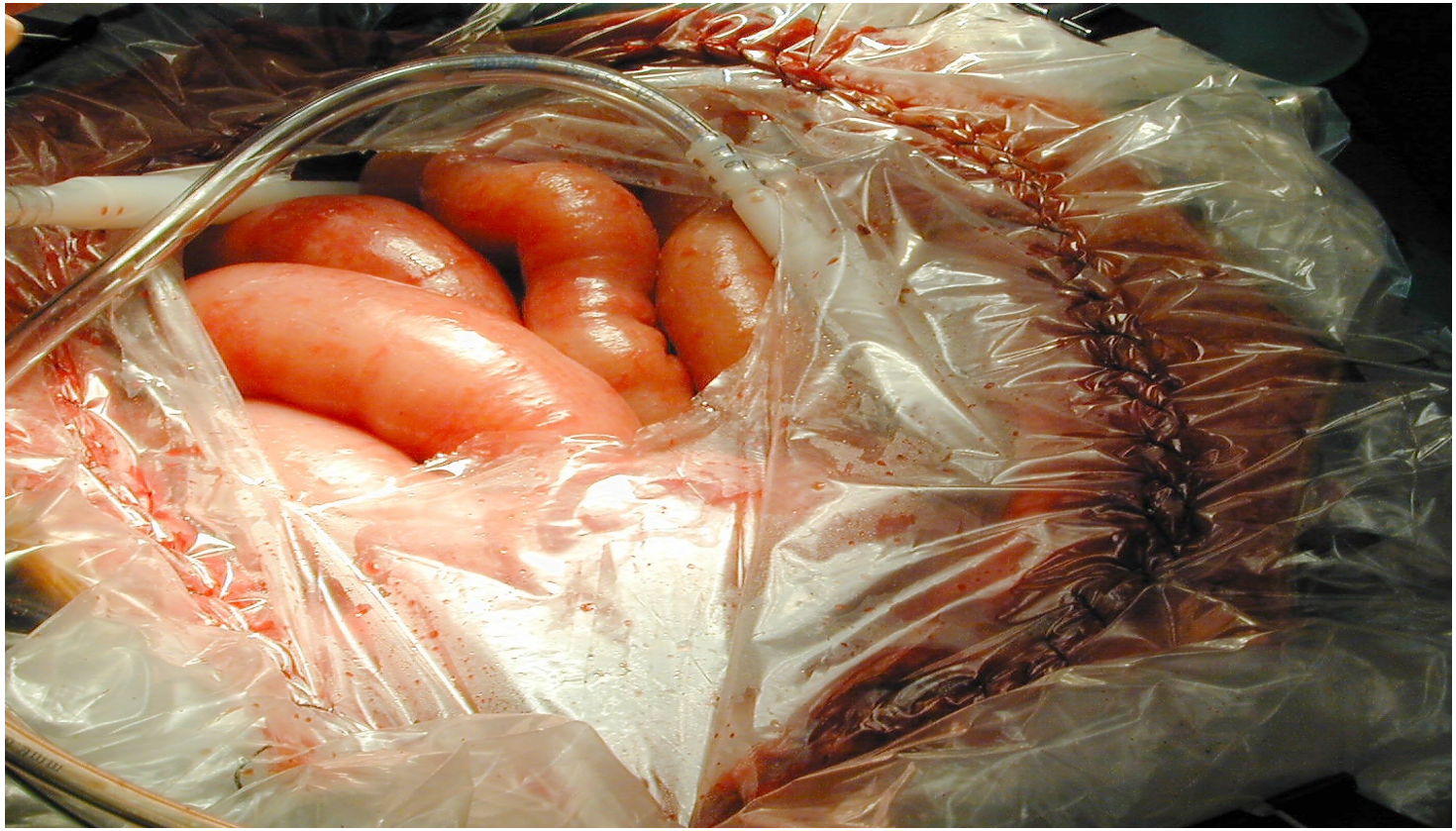

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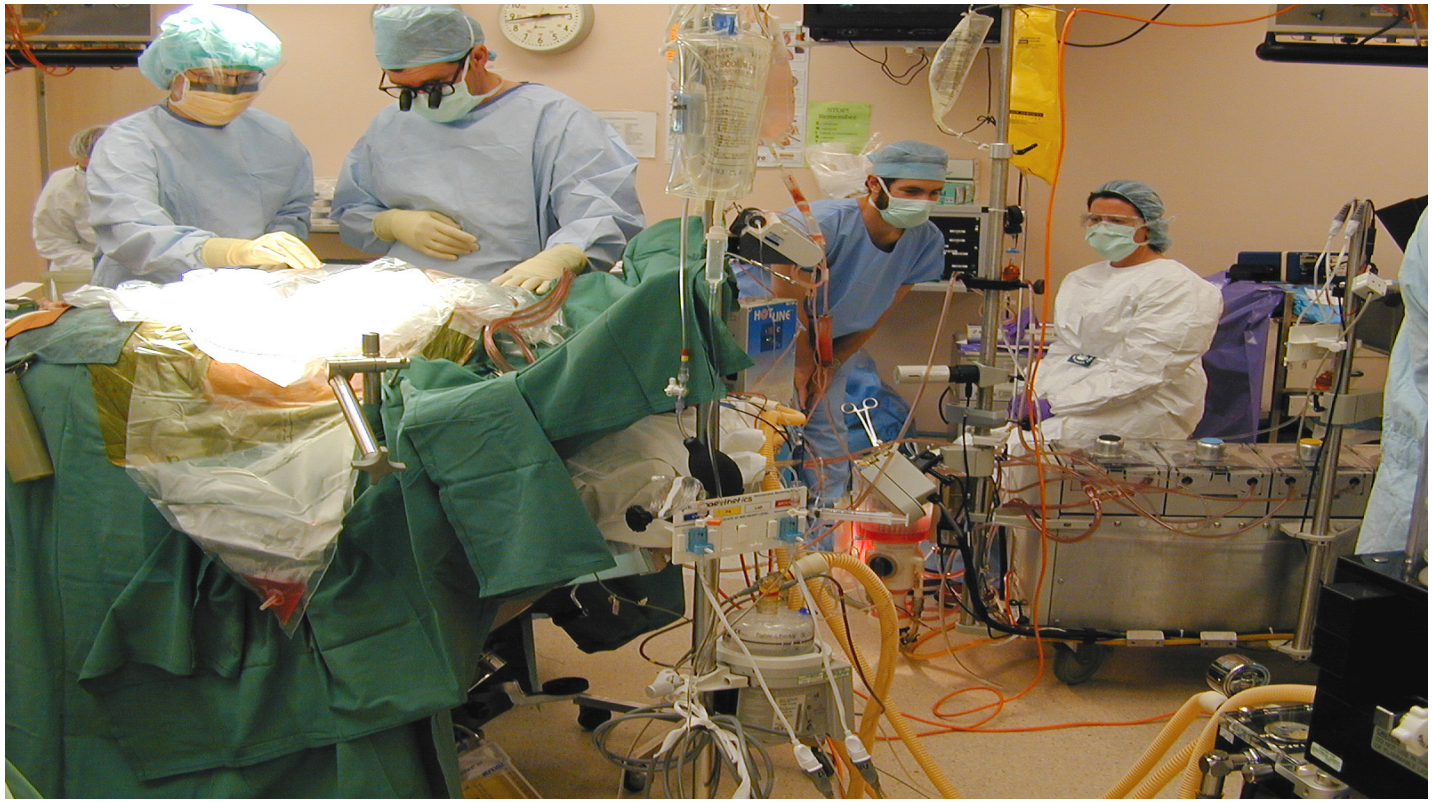


CRC by Volume Disease

Guirgis et al. CRS/HIPEC Offers 60% 5y OS for low Vol CRC. Gastrointestinal Disorders, 7(3); 57, 2025

	PCI < 10	PCI ≥ 10	All Patients
Number	57	32	89
Age	58 (23-78)	57 (34-74)	58 (23-78)
Male:Female	33:34	16:16	49:40
PCI	6 (1-9)	14 (10-24)	7 (1-24)
Synchronous/ Metachronous	12 / 45	18 / 14	30 / 59
Op time (hours)	9 (6-16)	11 (8-14)	10 (6-16)
Inpatient days	13 (7-37)	13 (9-74)	13 (7-74)
Transfusion	2 (3.5%)	1 (3%)	3 (3%)
Stoma	16 (28%)	16 (52%)	32 (36%)
TPN	12 (21%)	11 (34%)	23 (26%)
CD I/II	15 (26%)	9 (28%)	24 (27%)
CD III/IV	3 (5%)	6 (19%)	9 (10%)
Return theatre	3 (5%)	6 (19%)	9 10%
Readmission	8 (14%)	6 (19%)	14 16%

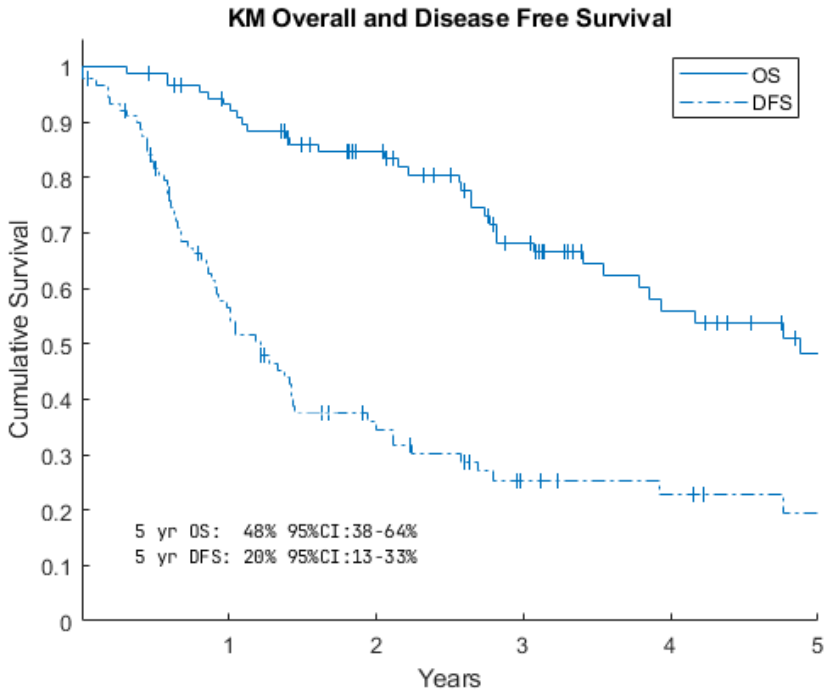
Survival Outcomes

Median Overall Survival 58 months

	Five year OS	Five year DFS
All patients (n=89)	48%	20%
PCI<10 (n=57)	60%	29%
PCI>=10 (n=32)	23%	0%

Overall and Disease Free Survival

Guirgis et al. CRS/HIPEC Offers 60% 5y OS for low Vol CRC. Gastrointestinal Disorders, 7(3); 57, 2025



Overall Survival by Disease Volume

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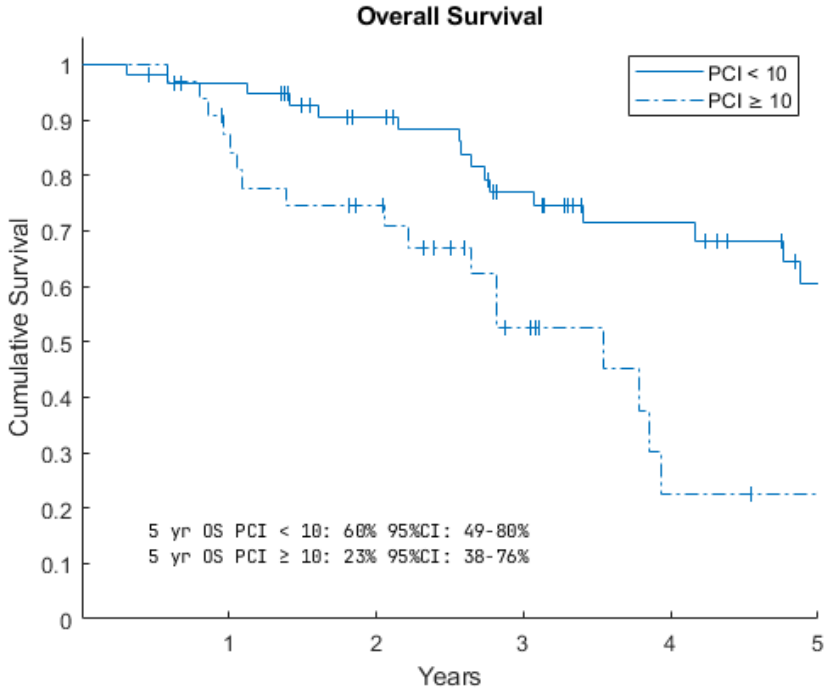

Disease Free Survival by Volume

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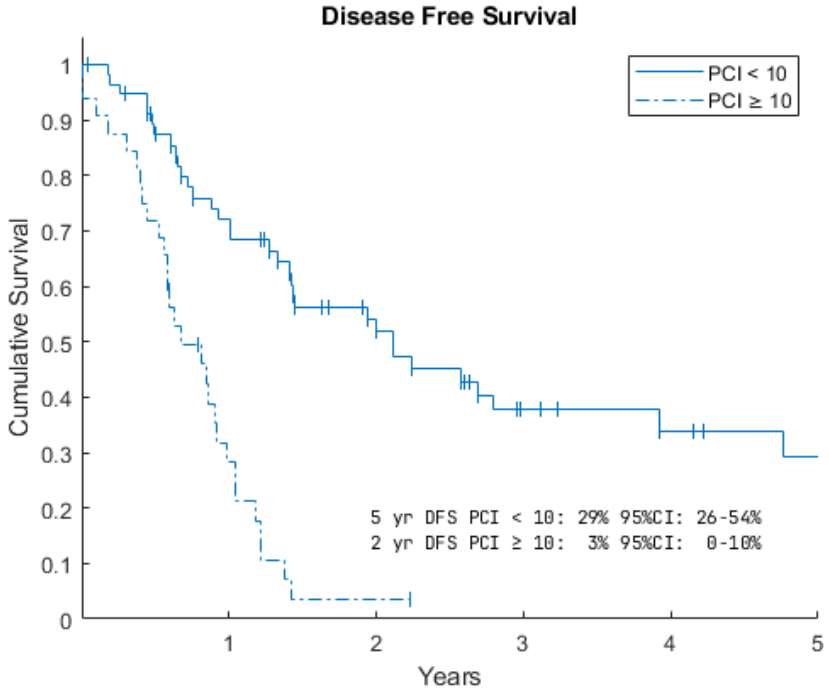

Survival by HIPEC Agent
No difference

HIPEC Agent	3 year OS	3 year DFS
Oxaliplatin (n=40)	61%	41%
Mitomycin C (n=49)	71%	34%

Survival and HIPEC

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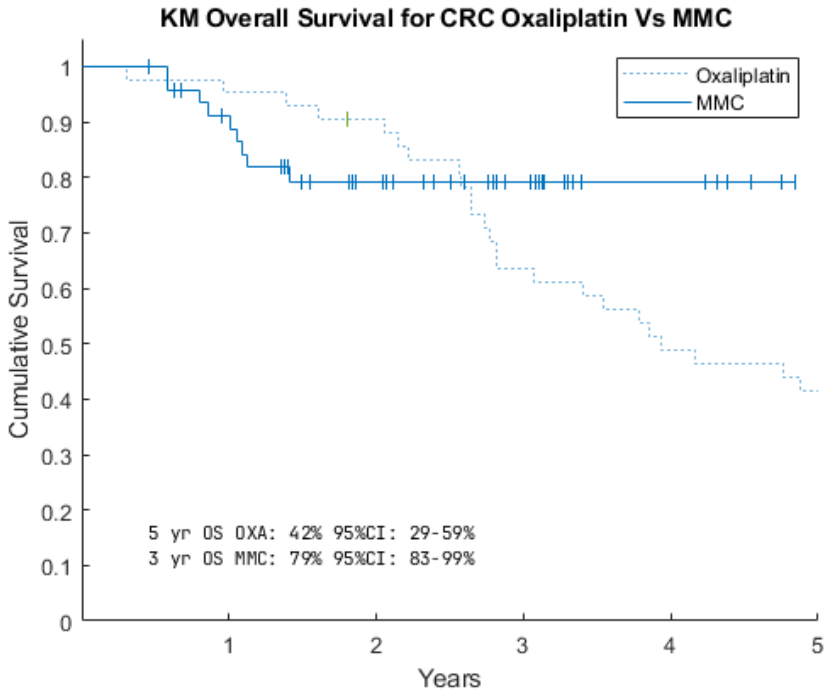

Take Home Messages

- **Good Survival Outcomes – selected patients**
  - Half of all patients will be alive in 5 years, 20%DFS
  - 60% of low volume disease will be alive in 5 years; 30% DF
- **Acceptable M&M**
  - Zero perioperative mortality
  - Average hospital stay 13 days
  - 3% Transfusion; 25% TPN, 30% reversable loop ileostomy
  - Major morbidity (CD 3/4)IV - 10%

- Peritonectomy is **NOT** becoming standard of care
  - **Peritonectomy IS the standard of care !**