Advanced Pelvic Malignancy:

Defining Resectability – Be Aggressive

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CONFLICT OF INTEREST DECLARATION

- I have no conflicts of interest

Advanced Pelvic Malignancies

- Locally Advanced Rectal Cancer
- Recurrent Rectal Cancer – less common entity now
- Anal Canal Cancer
- Locally Advanced GU Cancer – prostate, bladder
- Locally Advanced Gyn Cancer – cervix, endometrial
- Soft Tissue or Bony Sarcoma of pelvis

Surg Oncol Clin N Am. 2005;14(2):397-417
Sem Surg Oncol 2000;18:199-206

Selection

- Patient factors – physiologic age/ reserve, motivated, fully informed, ideally with good supports
- Tumor factors
  - Biology – locally advanced vs. recurrent
  - Staging – MRI pelvis modality of choice

    - CT C/A/P +- CT/ PET

Surg Oncol Clin N Am. 2005;14(2):397-417
J R Coll Surg Edinb 1999;44:117-25
Br J Surg 2013;100:E1-E33

Multidisciplinary

- Chemoradiation for downstaging
  - ? Re-irradiation if feasible; other options – brachytherapy, intraoperative
- Trial of chemotherapy (time) to test biology?

- Multiple surgical specialists – surgical oncology/ colorectal, urologic, plastics, +- vascular, +- orthopedics
- Well-informed, committed patient

N Engl J Med 2006;355:1114-23
Surg Oncol 2013;22:22-35

Unresectable?

- Poor performance status
- Distant metasatic disease

- Pelvic sidewall involvement
- Common iliac node involvement
- Encasement of external iliac vessels
- Extension of tumor through sciatic notch
- High Sacral Involvement (above S2/3 junction)
- Predicted R2 resection
- Sciatic nerve (bilateral) involvement
- Circumferential bone involvement

Br J Surg 2013;100:E1-33

Metastatic Disease

- Lung/ Liver metastases
- Retroperitoneal/ Para-aortic lymphadenopathy
- Peritoneal Carinomatosis

Ann Surg Oncol 2011;18(3):697-703 EJSO 2014;739-746
J Clin Oncol 2004;22:3284-92

Local Resectability

- Based on preoperative imaging – MRI
- Intraoperative palpation alone insufficient to determine resectability
  - Rectal cancer on sacrum is fixed; Sarcoma on symphysis is fixed – Neither unresectable

- Reserve term unresectable for anatomic demonstration of the involvement of vital structures in which resection would be incompatible with meaningful quality of life or result in death

Br J Surg 2013;100:E1-33

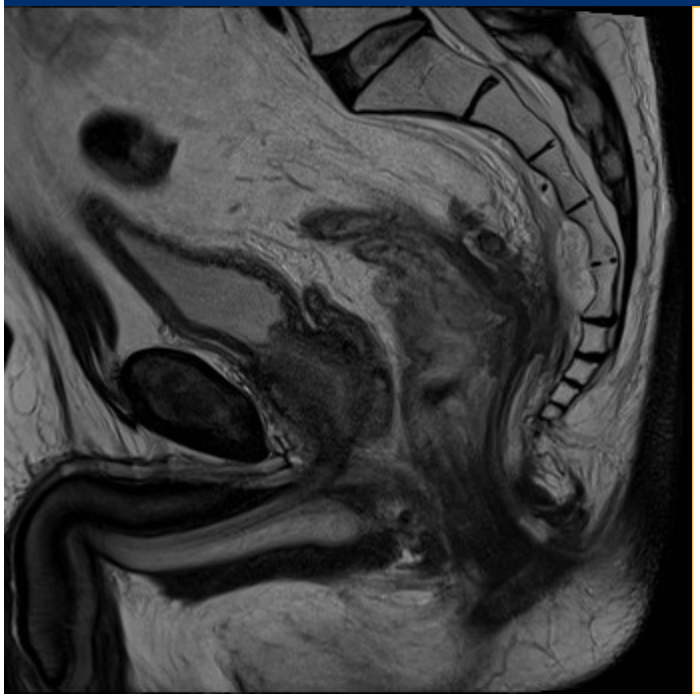
Resectability

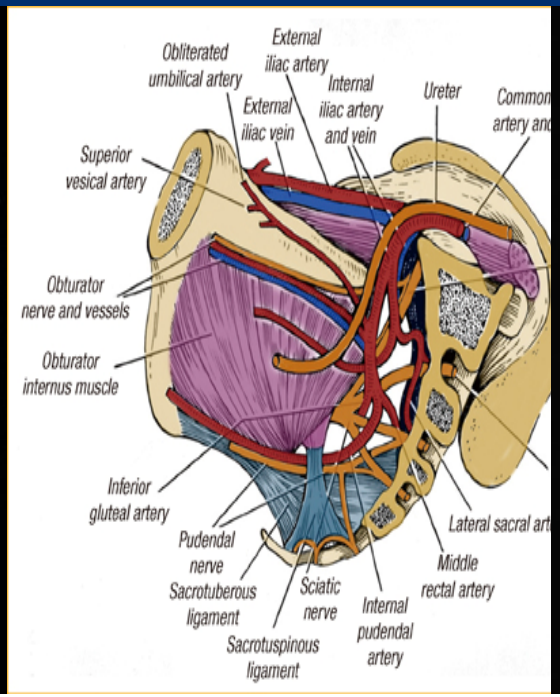
- "Be aggressive" – if touching/ adherent on preoperative imaging– **plan** en bloc resection
  - 40-85% of adhesions are malignant
  - Only margin negative resections/ improved local control/ survival
- All central pelvic organs resectable
  - Need to "be prepared" (patient and surgeon) – majority don't have multivisceral resection
  - Hysterectomy/ partial vaginectomy
  - Partial cystectomy
  - Total cystectomy with trigone involved
  - Proctectomy

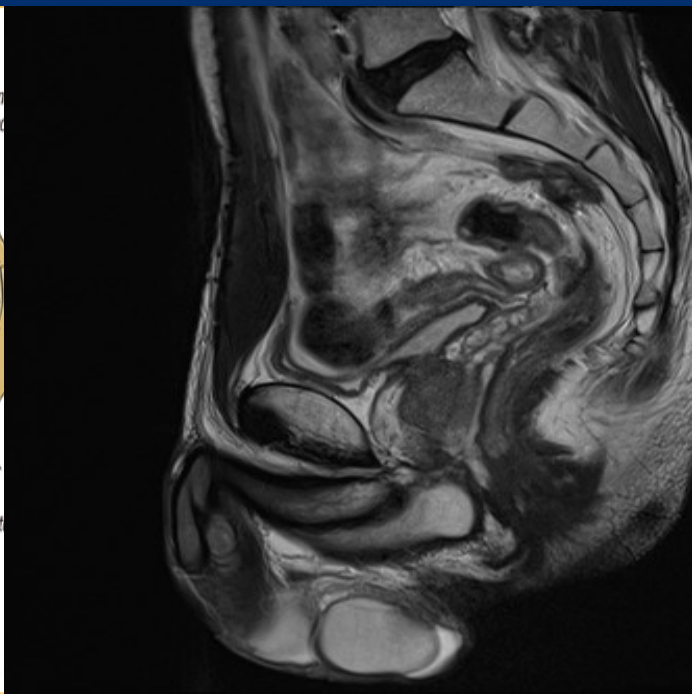
J Natl Cancer Inst 2001;93:583-96
J Natl Cancer Inst 2006;98:1474-81

Sacral Resection

- Level of resection and nerve root sacrifice is main determinant of resectability
- May differ based on different tumor types and biology

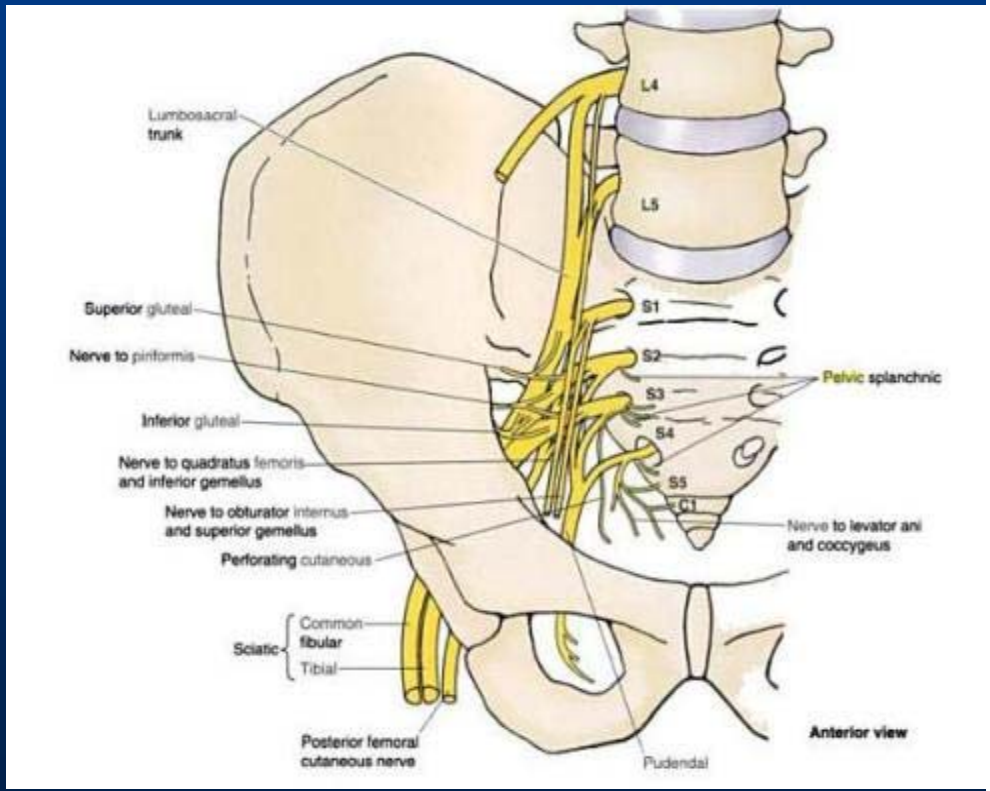






Sacral Resection

- S4 and below – impaired perineal sensation
- S3 – impaired bowel/bladder/sexual function
- S2- impaired ambulation
- S1, L5 – unable to walk

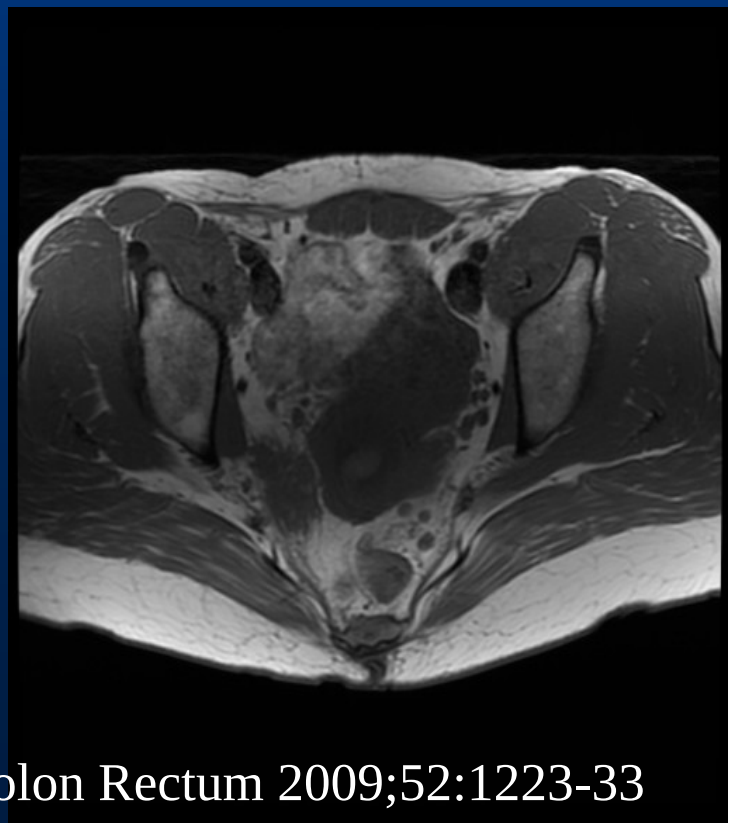


- But similar R0 resection rates and long-term outcomes as

J Neurosurg Spine 2005;3:111-22
Dis Colon Rectum 2014;57:1153-61

Sidewall Resection

- Peritoneum, Ureter
- Internal iliac vessels – beyond superior gluteal branch
- Common iliac vessels
- Bony pelvis
- Pelvic resection
- Sciatic, femoral nerve
- Hemipelvectomy



Dis Colon Rectum 2009;52:1223-33

Unresectable?

- Absolute
  - Poor performance
  - Bilateral sciatic nerve involvement
  - Circumferential bone involvement

} hemicorporectomy?

- Relative
  - Extension of tumor through sciatic notch
  - Encasement of external iliac vessels
  - High Sacral Involvement (above S2/3 junction) – however, offered in some tumor types
  - Predicted R2 resection (palliative exenteration?)
  - Irresectable distant metastases

Br J Surg 2013;100:E1-33

Conclusion

- Appropriate **selection** – patient factors, tumor factors noting different tumor biologies, staging, multidisciplinary assessment plan
- Unresectable – term based on anatomic demonstration of the involvement of vital structures – result in death or incompatible with meaningful QOL
- Central pelvic organs resectable
- Differing implications for sacral vs. sidewall extension
- Resection is the **ONLY** opportunity of long-term local control and survival

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at www.canadiansurgeryforum.com