NCI·CC
A Cancer Center Designated by the National Cancer Institute

THE UNIVERSITY OF KANSAS CANCER CENTER

BEST HOSPITALS U.S.News NATIONAL CANCER 2014-15

Surgical Management of Oligometastatic Disease and GU Cancers

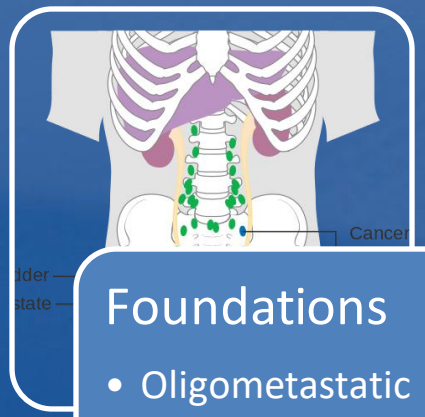
Multidisciplinary Oncology Review
University of Kansas Cancer Center
May 4, 2024

Johnathan A. Drevik, MD, MS
Urology Oncology Fellow
Department of Urology
University of Kansas Medical Center

Funding/Disclosures

- Funding
  - None
- Consultant
  - None

Outline



Foundations

- Oligometastatic Disease
- Diagnostic Approach

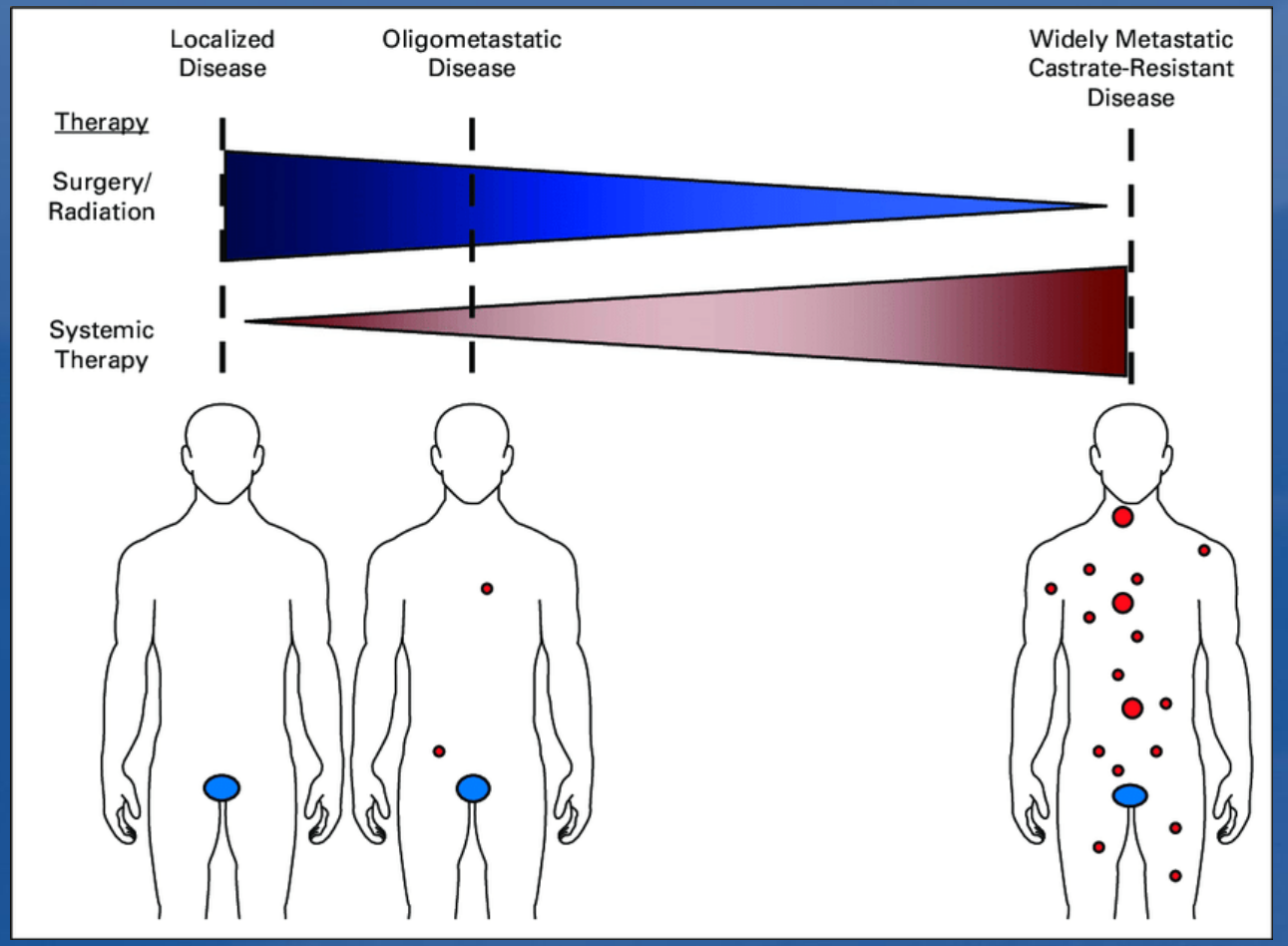
Role of Surgery

- Prostate
- Bladder
- Kidney

Challenges and Advances

- Challenges
- Advances
- Future Directions

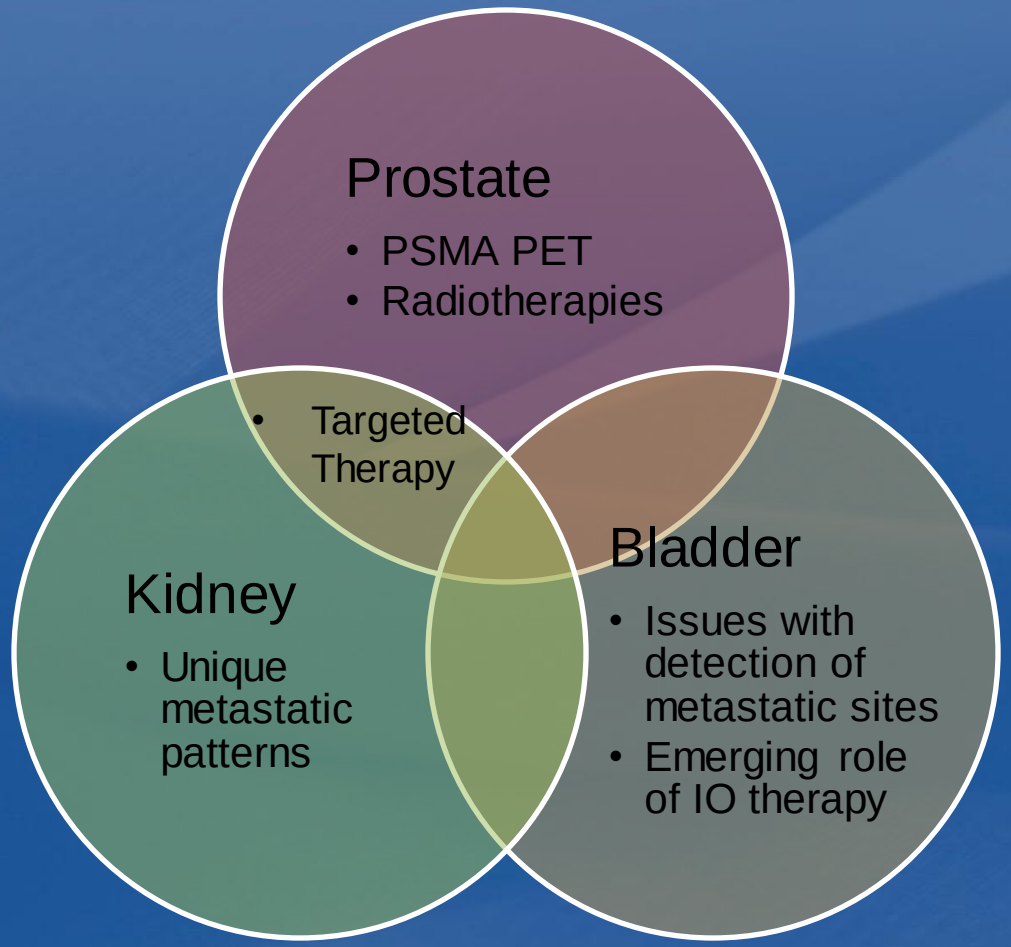
Oligometastatic Disease



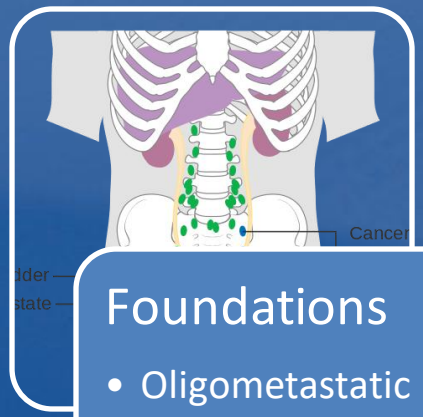
(Tran et al, Journal of Oncology Practice. 2017)

Oligometastatic Disease

Issues with Oligometastatic Disease
- Defining OMD
- Improved technology and therapy



Outline



Foundations

- Oligometastatic Disease
- Diagnostic Approach

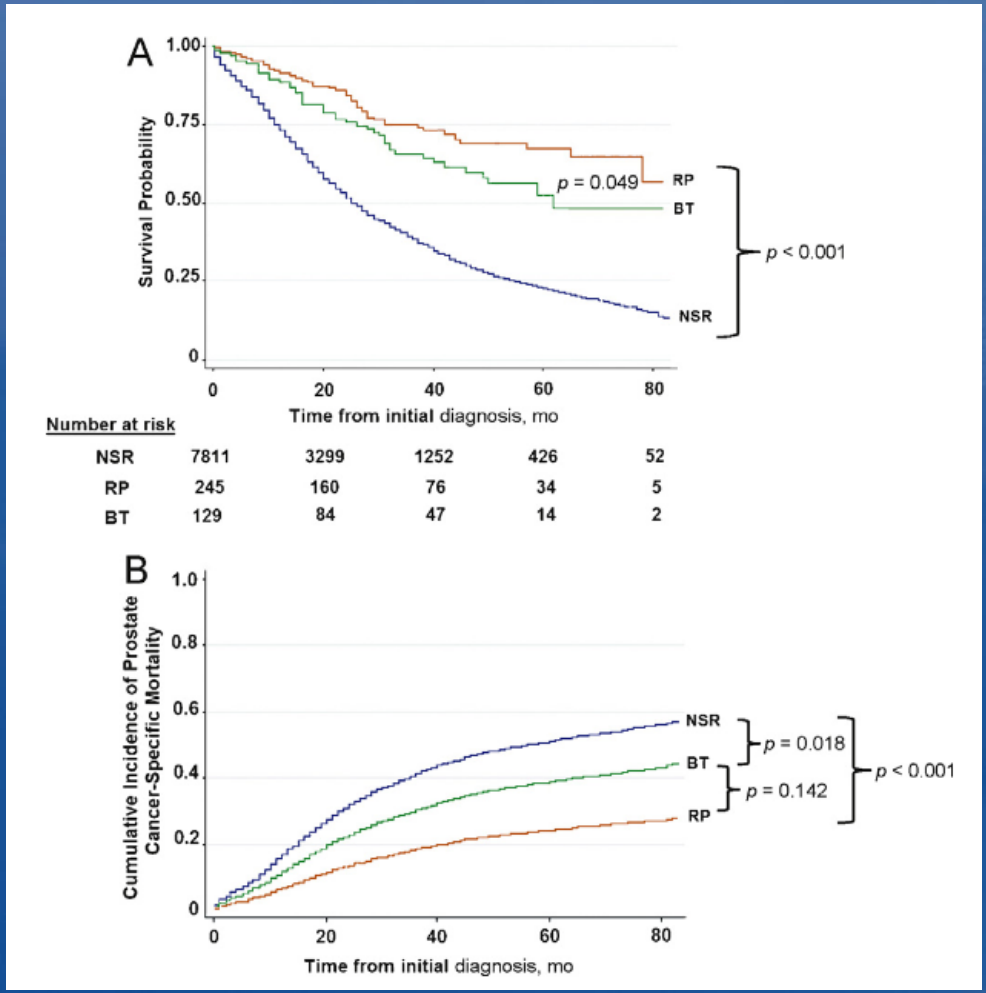
Role of Surgery

- **Prostate**
- Bladder
- Kidney

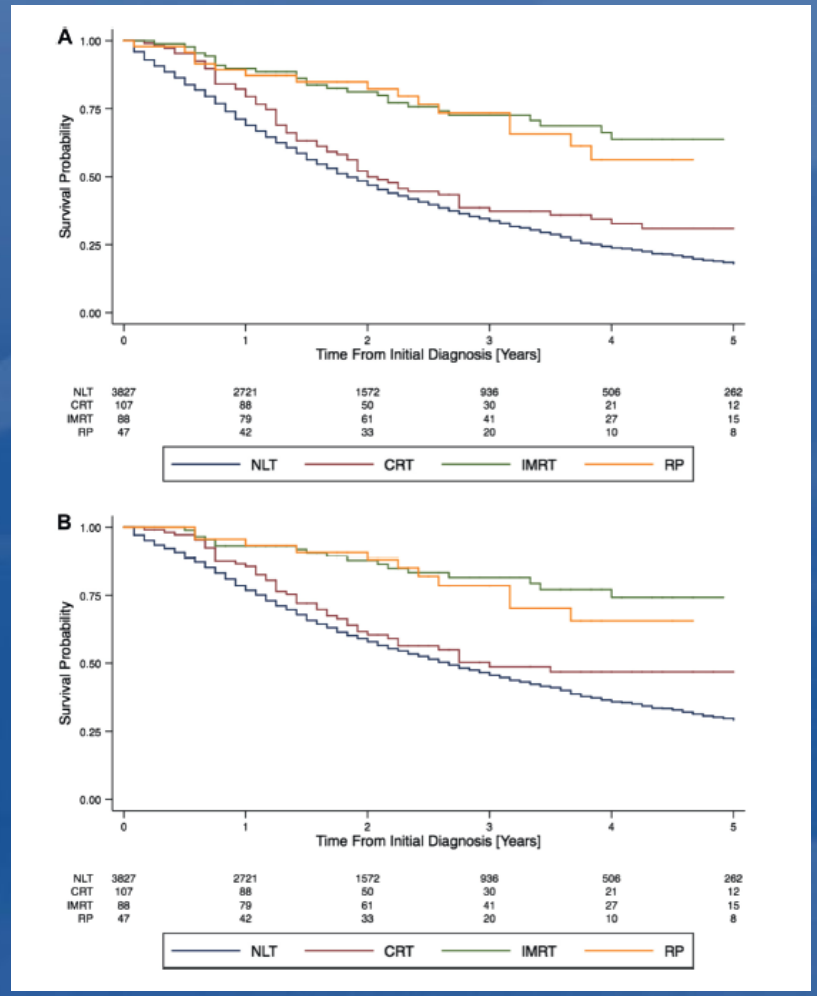
Challenges and Advances

- Challenges
- Advances
- Future Directions

Local Consolidative Therapy

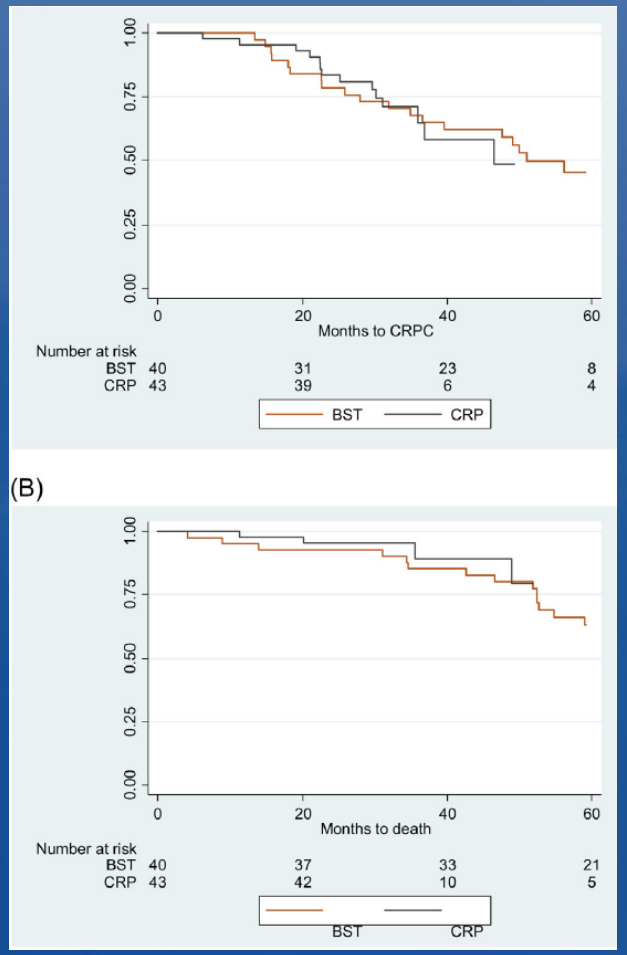


Culp et al., Euro Uro. 2014

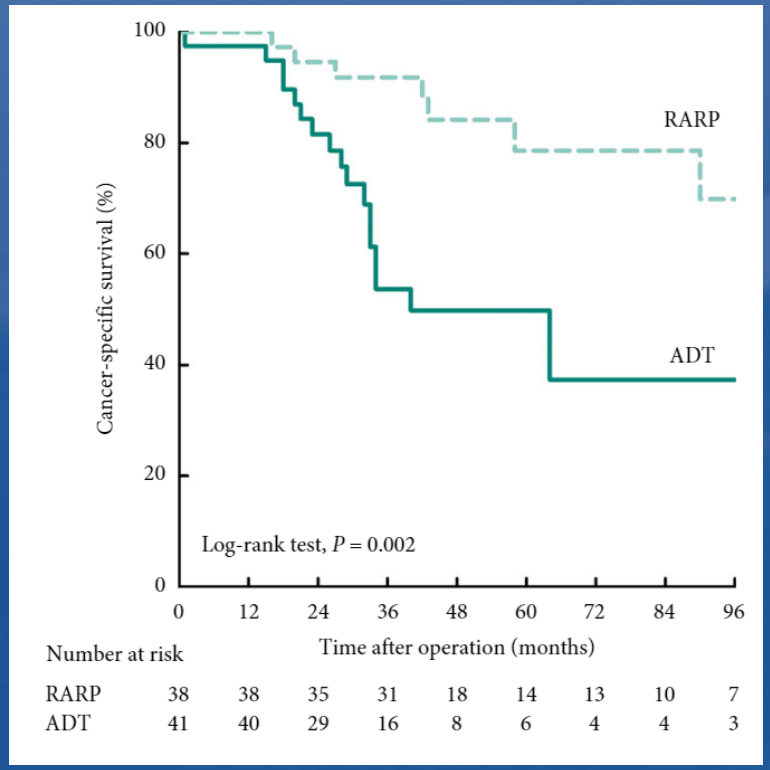


Satkunasivam et al., JU. 2015

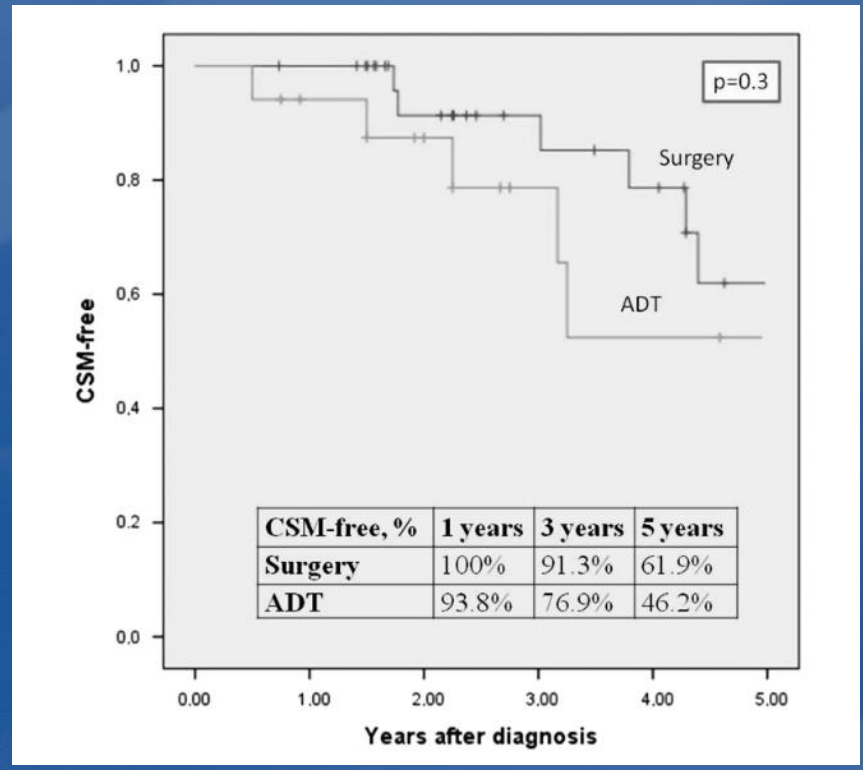
Oncological Impacts



Steuber et al., Euro Uro. 2017



Jang et al., BJUI. 2018



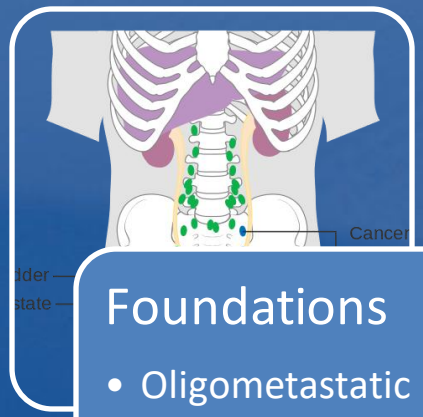
Karnes et al., Pro Cancer and Prostatic Diseases. 2017

Ongoing Clinical Trials

- SWOG 1802
  - Randomizing patients with metastatic prostate cancer to best supportive therapy +/- definitive therapy (RT or RP)
    - 660/1270 Enrolled
    - PSMA PET and MDT
- TRoMbone Study (<3 m1b)
  - 50 patients randomized to SOC +/- RP with eLND
  - Positive surgical margins of 43%
  - 78% with pT3b disease
- g-RAMPP
  - Evaluating RP with eLND in limited bone metastatic prostate cancer

No Role for Surgery in Oligometastatic Prostate Cancer currently Outside of a Clinical Trial

Outline



Foundations

- Oligometastatic Disease
- Diagnostic Approach

Role of Surgery

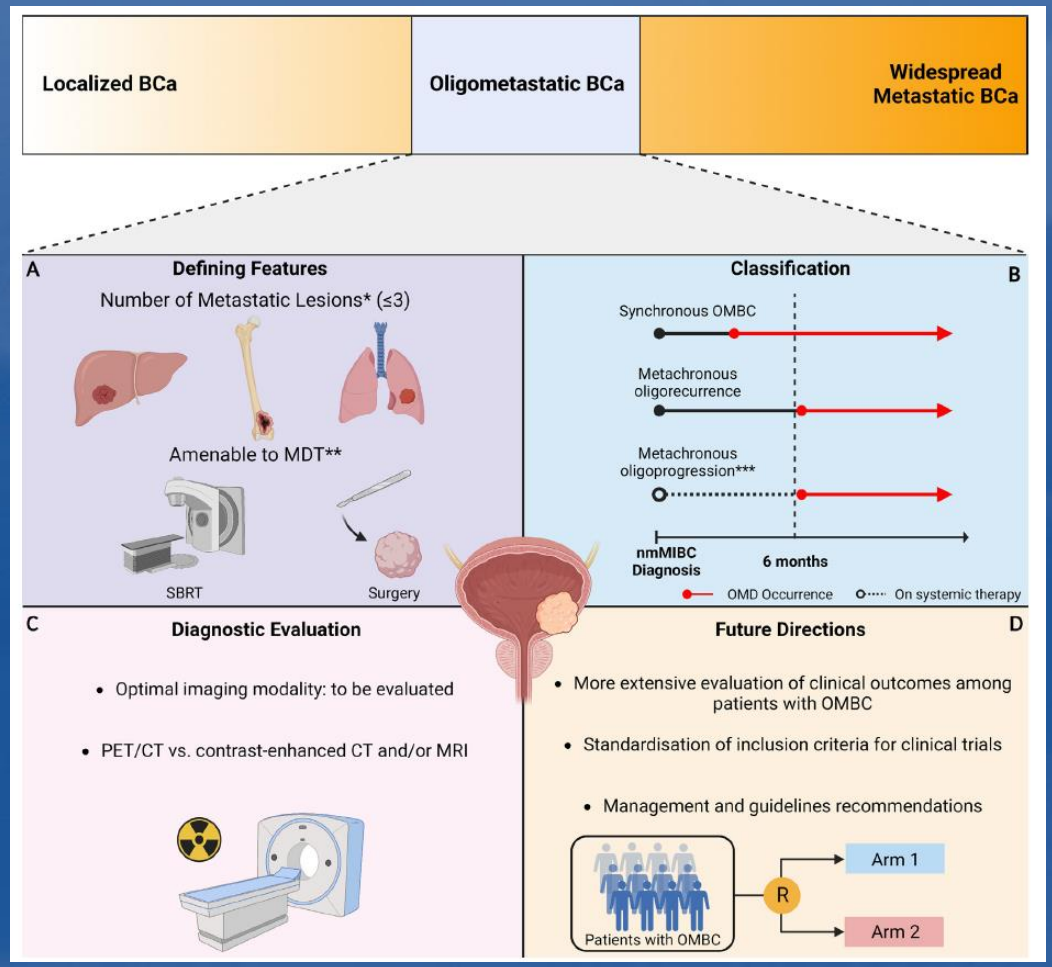
- Prostate
- **Bladder**
- Kidney

Challenges and Advances

- Challenges
- Advances
- Future Directions

Defining Oligometastatic Bladder Cancer

- Goal of EAU recently to define oligometastatic disease (OMD)

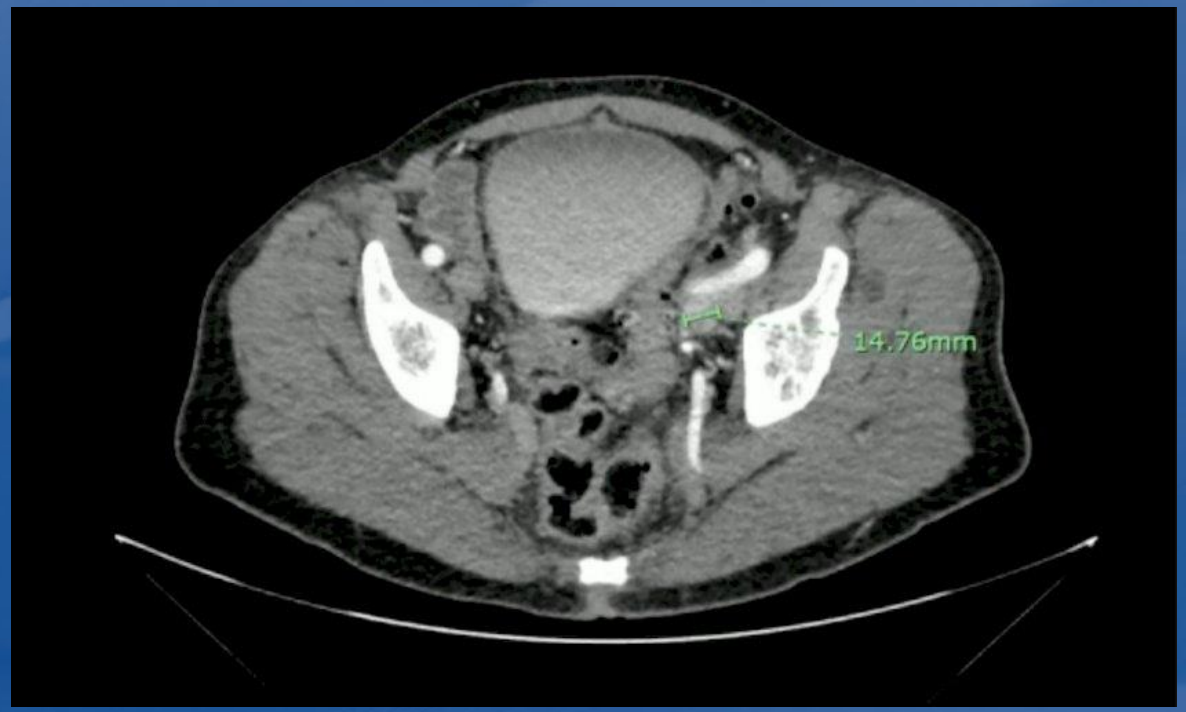


- No consensus on
  - Classification of pelvic LNs
  - Number of affected LNs
  - Exclusion of specific metastatic sites
  - Ideal imaging strategy

Labaki et al., EU. 2023

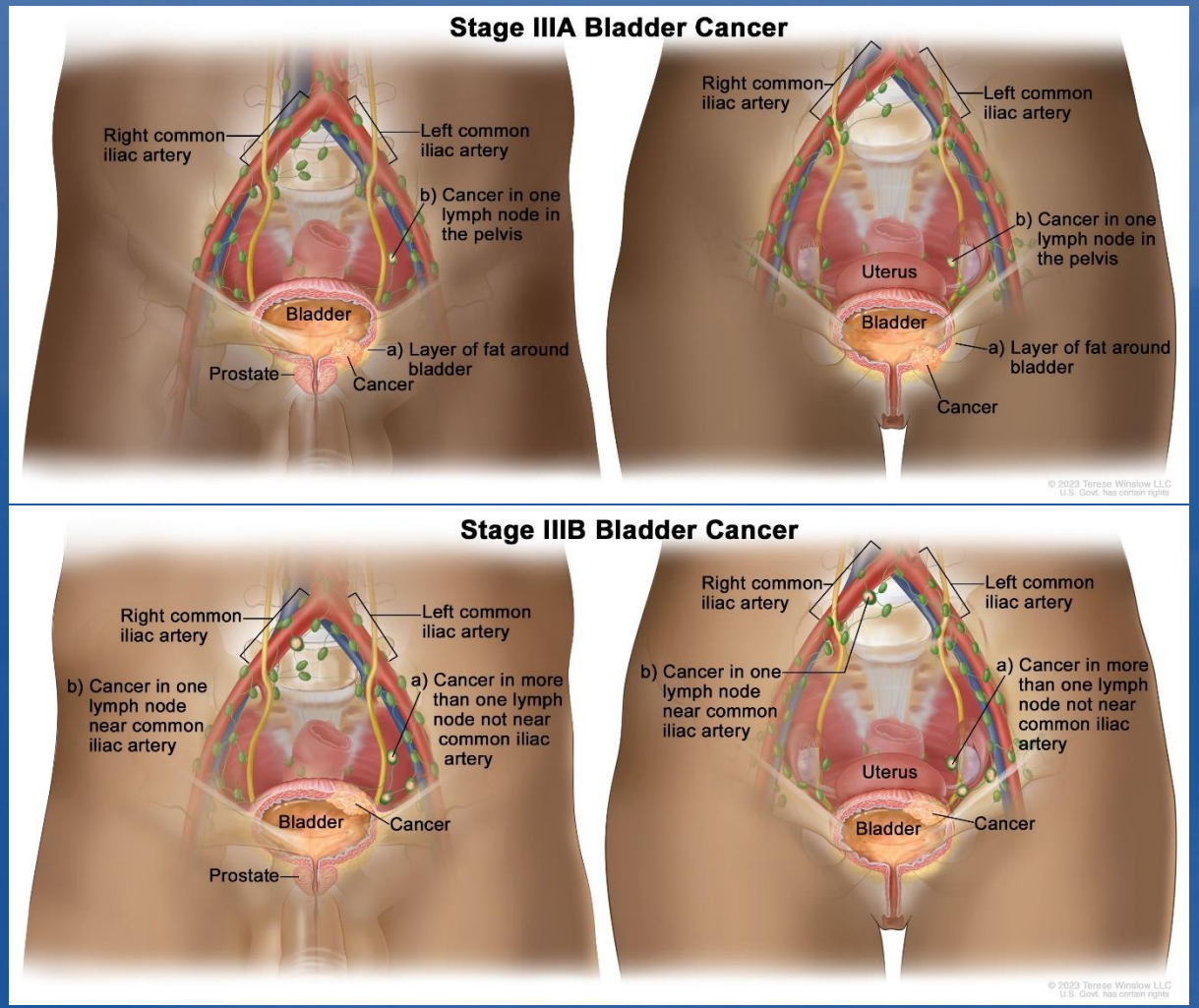
Case #1

- 80 yo M with GH and bladder mass s/p TURBT showing invasive papillary UCC into muscularis propria
- Staging CT showing 1.5 cm left pelvic LN
- No disease noted in chest
- Next step?



Lymph Node Positive Disease

- AJCC 8th Edition Staging system for bladder cancer re-classified node positive disease [N+ (N1-N3)] as stage III disease (previously Stage IV)



- N1-N3 disease vs. N0
  - N0 RFS after chemotherapy = 81%; N1-3 = 25-35%
  - N1-3 w/o visceral mets 5-year OS
    - NAC + RC = 31%
    - RC + Adjuvant chemo = 26%
    - RC alone = 19%
  - Post-chemotherapy cystectomy for regionally metasttic UCC associated with 5-year OS of 41% vs. 8% without surgery

Case #2

- 76 yo M with TURBT showing HG UCC with invasion into muscularis propria
- CT Chest showing 1.5 cm RUL lung cavitary nodule
- Next steps?

Postchemotherapy Surgery: Visceral Mets

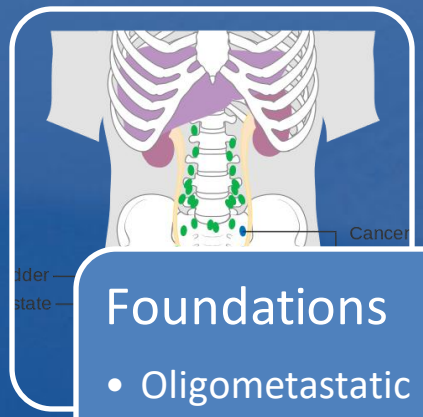
Series	Number of Patients	Outcome	Take Home
Dodd et al. 1999 (MSKCC)	50 received MVAC 30/50 (60%) with viable tumor 10/50 (20%) distant metastatic sites	10 patients with visceral mets (3 LN, 2 soft tissue, 4 lung, 1 liver) with 3 alive at 5 years (30%)	Resection of residual disease most beneficial in LN positive disease or those with response to chemotherapy
Siefker-Radtke, et al. 2004 (MDACC)	24 pulmonary, 4 distance LNs, 2 brain, 1 subcut (7 at presentation, 24 mets after resection of primary)	29 with viable disease (2 with necrosis recurred)	Median OS 17 mo **5 yr survival 33%**
Lehmann et al 2009 (Germany)	44 (RP LNs 57%, distant LNs 11%, lung 18%) 80% received systemic chemotherapy	NA	Median OS 27 months CSS 34 months 5 yr OS: **28%**

Conclusion: Selection is Key … if doing it

- Patients demonstrated a **significant** response to chemotherapy
- **Limited** disease (3 S's: small, single site, solitary)
- Ability to **completely** resect disease, be **thorough**
- Some also considered the **stability** of disease for an interval after completion of chemotherapy
- **Good** performance status
- **May** improve survival from 14 to 20 months in **selected** patients
- **Might** improve quality of life (if obstructed or bladder QOL poor)

Surgery for M1-M3 disease after NAC best for those with response to chemotherapy but still worse than M0 disease. No role for surgery in visceral metastatsis

Outline



Foundations

- Oligometastatic Disease
- Diagnostic Approach

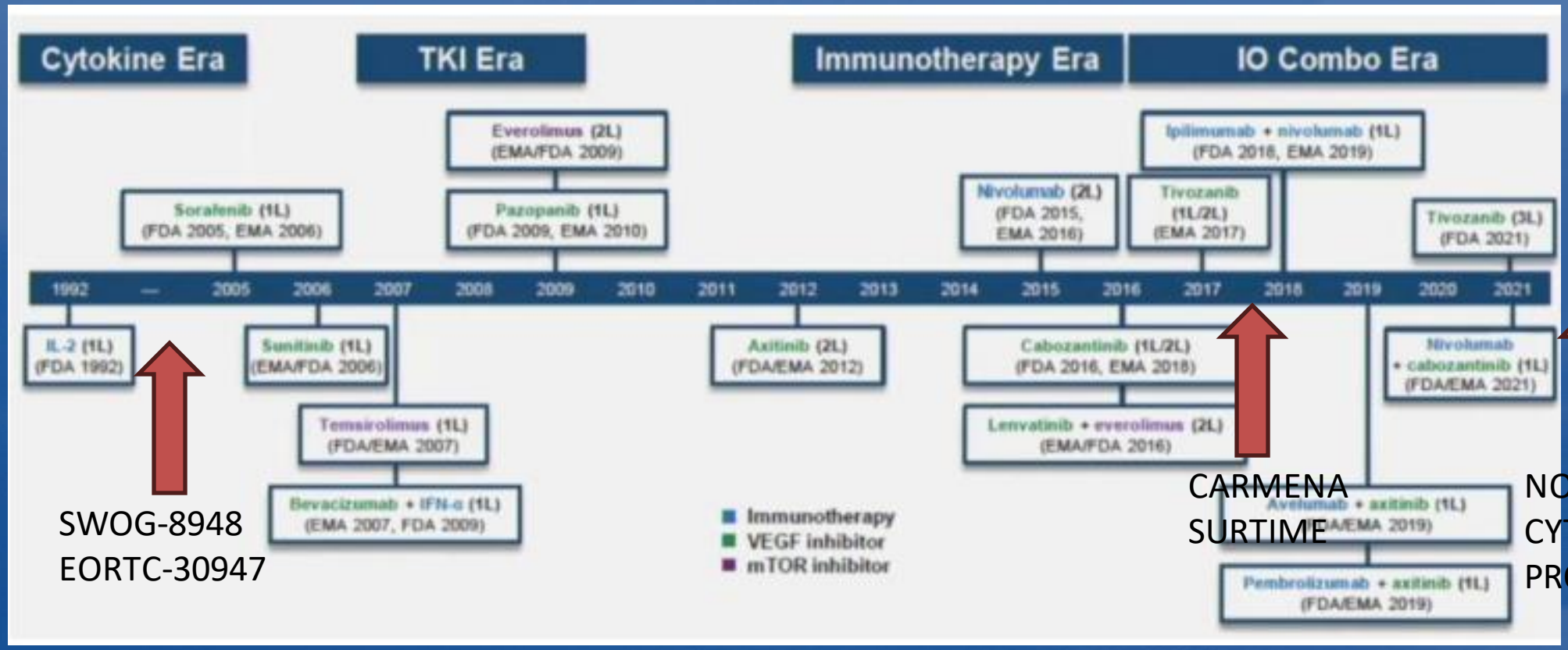
Role of Surgery

- Prostate
- Bladder
- **Kidney**

Challenges and Advances

- Challenges
- Advances
- Future Directions

Role for Surgery



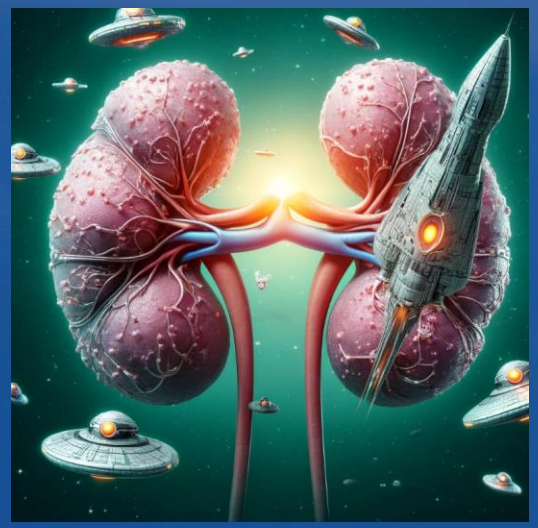
SWOG-8948
EORTC-30947

CARMENA
SURTIME

NORDIC-SUN
CYTO-KIK
PROBE

Unsolved Questions

What are the benefits of CN?

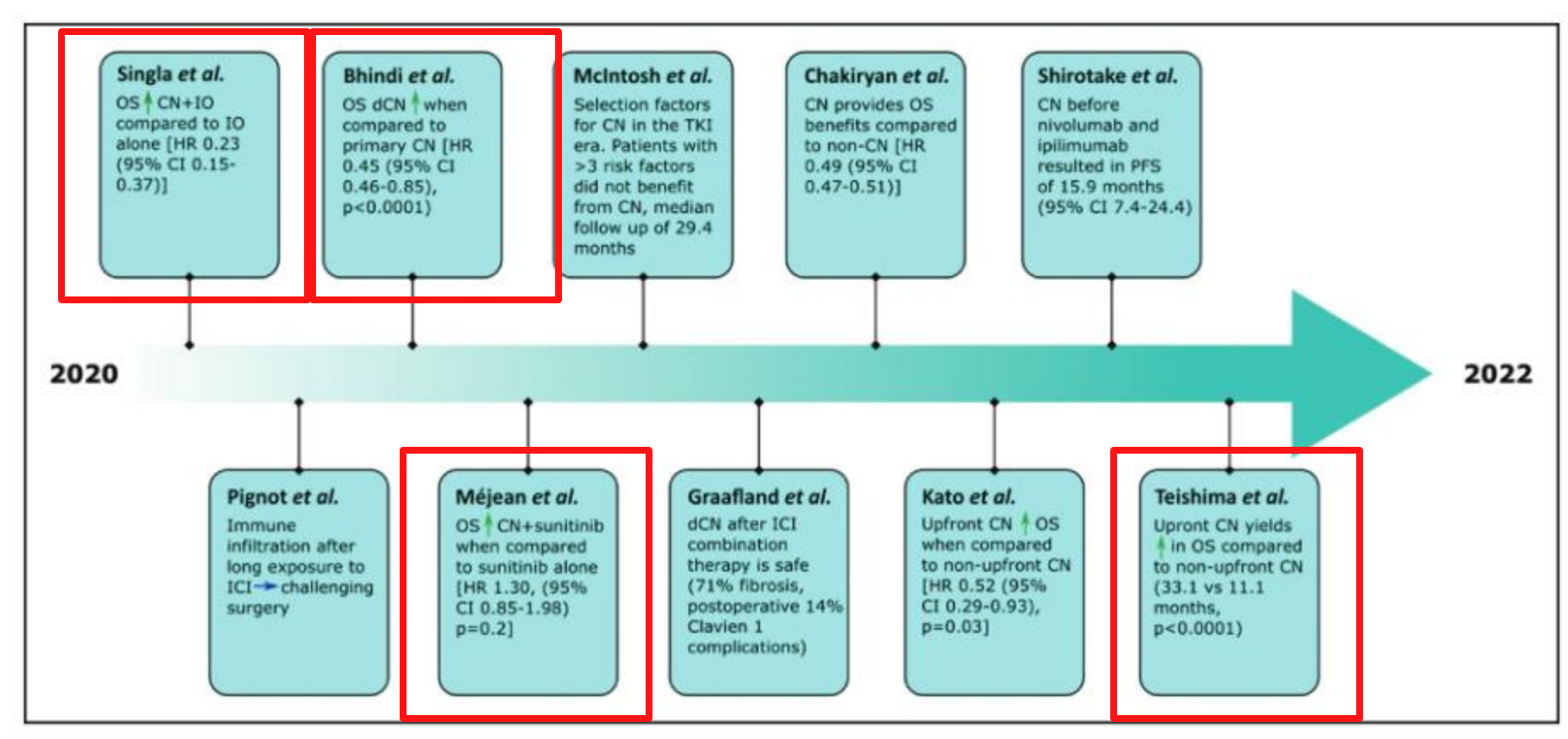


- Aggressive
- Recur frequently
- Grow and metastasize quickly
- Grow slowly
- Indolent

Assess

1. Clinical parameters
2. Pathologic parameters
3. “omics” data
4. Nomograms

Role of CN in Targeted Therapy Era



Isali et al., Urology. 2022

Recommendations

Summary	Level of Evidence
Do not perform cytoreductive nephrectomy (CN) in MSKCC poor-risk patients	Strong
Do not perform immediate CN in intermediate-risk patients who have an asymptomatic synchronous primary tumor and require systemic therapy	Weak
Start systemic therapy without C in intermediate-risk patients who have an asymptomatic synchronous primary tumor and require systemic therapy	Weak
Discuss delayed CN with patients who derive clinical benefit from systemic therapy	Weak
Perform immediate CN in patients with good performance status who do not require systemic therapy	Weak
Perform immediate CN in patients with oligometastases when complete local treatment of metastases cannot be achieved	Weak

Ongoing Trials

Study Name	Trial Number	Primary Outcomes	Intervention	Condition
Pembro with or without Axitinib for Treatment of Locally Advanced or Metastatic Clear Cell Kidney Cancer in Patients Undergoing Surgery	NCT04370509	Proportion of participants with ≥ 2-fold increase in number of tumor infiltrating immune cells	Axitinib, CN, metastasectomy, pembro	mRCC, recurrent ccRCC, Stage III RCC, Stage IV RCC, ccRCC
Deferred CN in Synchronous Metastatic Renal Cell Carcinoma: NORDIC-SUN Trial	NCT03977571	OS (minimum 3 years follow up)	CN, tissue sampling	Kidney cancer, mRCC, synchronous neoplasm
Comparing Outcomes of Immunotherapy-Based Drug Combination with or without surgery to remove the Kidney in Metastatic Kidney Cancer: PROBE Trial	NCT04510597	OS (from date of randomization to date of death due to any cause, up to 7 years)	CN, nivolumab 240 mg, nivolumab 480mg, pembro, axitinib, avelumab, axitinib	mccRCC, mRCC, Stage IV RCC
CYTO Reductive Surgery in Kidney Cancer Plus Immunotherapy and Targeted Kinase Inhibition (Cyto-KIK)	NCT04322955	Percentage of participants with a complete response (up to 5 years after completion of treatment)	CN, cabozantinib, nivolumab	Kidney cancer, RCC

Questions