Local Complications in advanced prostate cancer

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Practical approach

• Urinary Obstruction of the lower urinary and upper urinary tract

• Cytoreductive prostatectomy

• Salvage lymph node dissection
Prevalence

• High incidence of nodal metastasis to pelvis and retroperitoneum in advanced prostate cancer

• N=30-50 cases of metastatic / advanced cancer per year
  – High prevalence of BOO or hydronephrosis
Levels of obstruction

• Ureteric
  – Retroperitoneal nodes
  – Trigonal invasion

• Bladder outlet
Ureteric obstruction

- Diagnosis – imaging guided
- Common dilemma in ureteric obstruction
  - Unilateral obstruction
    - Intervene or not
  - Bilateral obstruction
    - Intervene one or both sides
    - Which side first?
Unilateral obstruction

• Not symptomatic
• No clinical intent for chemotherapy
• Limited life expectancy 1 year or less

• Patient preference, perceived QoL from intervention

• May not intervene
Unilateral obstruction

• Nephrostomy preferred over retrograde stent insertion
  – LA
  – More expedient in those that are symptomatic (sepsis)

• Can allow antegrade insertion of stent

• Retrograde insertion possible
  – Difficult -> GA
  – Manipulation may trigger sepsis
To stent or not?

- Bulky pelvic disease
  - Urethral access is difficult
  - Cannot change stents
  - Divert urine away from hostile area
Choice of stents

• Polymeric stents
• Soft material
• Side holes allow urine flow
  – Can get encrusted
• Change via retrograde route is easy
• Better comfort profile
• Metallic stents
  – Resonance (Boston)
  – Less frequent change (12 months)
  – Discomfort

• Thermoexpandable memory stents
  – cost
Bilateral obstruction

• Drain the symptomatic side first
• Drain the side with better functional parenchyma

• Then consider the other side in the clinical context
Bladder outlet obstruction

• Urethral catheter or SP catheter is most expeditious especially in ARU

• Consider channel TURP
  – Surgically fit
  – Desires short catheter time

• Select patient with cT3 disease in retention – RP
Channel TURP for BOO

• More efficacious than ADT alone to relieve BOO expediently

• Higher risk of incontinence (5%) and need for re-intervention compared to TURP for BPH

• Higher risk of initial failed TOC (up to 20%)
  – bulky disease
  – Neurological compromise
Channel TURP for BOO

- Higher incidence of stress urinary incontinence after TURP and RT
- May have to delay RT until continence stabilises
Bladder outlet obstruction

- Not suitable for TURP
  - Upfront ADT
  - 80-90% catheter free – 6 months
  - LHRH agonists, anti androgens, orchidectomy : no difference to catheter free time

- Suprapubic catheter over urethral catheter
  - Comfort
  - Difficult urethral access
Is there a role for radical surgery?
• 65 year old retired home builder
• Taking care of grandchildren
• Acute retention of urine
• O/E DRE large, benign
• PSA 1.5

• CT Urogram showed a large prostate about 60ml, heterogenous mass
• TURP – poorly differentiated tumour
• positive cytokeratin AE1/3, AR
• PSA is very focally positive, PSAP is negative
• focal expression of GATA-3
• Uroplakin, 34BetaE12, p40 and p63 are negative (urothelial)
• Advised for radical treatment but defaulted for 3 months as no more urinary symptoms

• Represented with haematuria

• MRI – local progression to involve trigone, possibly rectum, new left hydronephrosis
• PSMA PET
  – Primary tumour uptake of PSMA
  – No distant mets
• Histology reviewed by uro pathologist in SGH
  – Likely prostatic origin
  – Poorly differentiated
  – Agree with immunostains of previous report
  – Unlikely urothelial

• Multidisciplinary clinic
  – Curative intent but need multi-modality therapy
  – ? Role of androgen deprivation therapy
  – Neoadjuvant bicalutamide+ LHRH agonist + surgery + adjuvant RT
  – Neoadjuvant LHRH + RT
  – ? Role of docetaxol, abiraterone
Intra-operative findings
- Large prostate tumour involving trigone, extended out of posterior peritoneum at rectovesical pouch
- Rectum adherent close to apex
- Primary rectal closure, defunctioning colostomy
- Ileal conduit
- VRAM flap to anterior pelvis

Histology
- pT4 Gleason 5+5, 0/31 nodes negative
- Urethral margin negative
- Posterior margin positive (peritoneum involved)
- Rectal margin negative

Discharged POD 7

Started leuprolide and adjuvant RT 1 month later

First post Sx+Adjuvant RT PSMA - negative
Urological outcomes following pelvic exenteration for advanced pelvic cancer are not inferior to those following radical cystectomy

Edwin J. Aslim, Min Hoe Chew, Ghee Kheng Chew, Lui Shiong Lee

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- 22 pelvic exenteration cases
- 2013-2016
- No anastomotic leaks
- Stricture / obstruction of ureter – 5% from extrinsic node recurrence
Summary

• Ureteric obstruction
  – Intervention should be clinically meaningful
  – Don’t treat the scans alone!
  – PCN versus stents

• Bladder outlet obstruction
  – Channel TURP is efficacious but less so than TURP for BPH
  – ADT then TOC is possible with a longer catheter time

• Selected patients for exenteration