



1. Current Imaging of Prostate Cancer by MRI and Metases by PSMA PET

Dr Robert Dempster (Radiologist)

Screening Prostate Cancer

- Reduces the number presenting with metastatic disease but has a far smaller impact on mortality
- ERSPC & USPTF recommend against population based PSA screening

Over-diagnosis, Over-investigation, Over-Treatment: low grade “cancer”

- Gleason Grade = most common + least common
- Screening preferentially detects low grade G6 (Gleason 6) which is very common and should not have the label “cancer”. Reasons for this are:
- G6 is metabolically indolent
- Locally indolent
- Has no metastatic potential

Relative vs. Absolute Risk Reduction

- Trials: Benefit RRR vs. Harm ARR: “All trials publish benefits in relative terms and harms in absolute terms and downplay or ignore overall mortality effect”

High grade Prostate Cancer is highly lethal

- Task: to find and treat the high risk disease but to NOT find the G6, otherwise the patient is stuck on the Treadmill

MRI Prostate

- In the context of History/Examination/PSA/Biopsy
- Non-invasive
- Evaluates the whole gland
- Reasonably accurate

PSMA PET

- Very new
- Improved accuracy: metastatic disease Pre Op-High Grade Cancers/Post Op-PSA Recurrence

Urology

- Field leading the new paradigm of approach to cancer by establishing a clear distinction between clinically significant and non-significant cancer



2. Latest Developments In Diagnosis and Management of Early Prostate Cancer

Mr Alwin Tan (Urological Surgeon)

Diagnosis consideration

- Fhx, Ethnicity & Agent orange exposure
- DRE
- PSA
- Ultrasound
- MRI: ?50% of patients before bx
- Biopsy: transrectal vs. transperineal
- Once diagnosis is confirmed: CT, BS
- ?PSMA PET Scan

Active Surveillance

- Postpone immediate therapy
- Definite treatment in place if there is progression
- Not like the old 'watchful waiting' (for symptomatic or metastatic)

Arguments for Active Surveillance

- Prostate cancer not clinically significant yet
- Reliable parameter: clinical + pathological + imaging to help distinguish that less chance of progression and spread
- All treatments have some side effects
- Time and surveillance will pick out those that need to be reclassified as higher risk
- ?psychological burden

Guidelines for selection not universal – NCCN

Surveillance Strategy: still in progress

- PSA change 3-6 monthly
- Repeat bx under 1 year and after that 2-4 years
- Up to 28% have higher grade missed

Seeds

Vs. Surgery

- J. Clinical Onc 29:362.2010

Seeds implants shows better:

- Urinary function
- Sexual function
- Overall satisfaction
- No difference in bowel function
- At 12 years out – equivalent or better "cure rate"



Advantages

- Day procedure
- High preservation of erection
- High preservation in ability to climax
- In cancer G6 and single core small Gleason 7 – cancer free as good if not better than surgery
- Incontinence rare
- Back at work within 3 days
- Radioactive for 63 days

Radical prostatectomy (if considered Organ confined T1-T2)

Aim

- Preserve the nerves
- Preserve the urethra
- Preserve the bladder neck

Risk

- Impotence risk 30-60%
- Incontinence – 1-3% still uses pad at the end of 12 months
- Home with IDC for 1-2 weeks

Botox to Bladder

- Via a cystoscopy
- Day procedure
- Now covered by PBS (from September 2015)
- Good for irritable bladder – mainly OAB (both neurogenic and non-neurogenic) and post radiation
- Can go into retention (so must be able to ISC if cannot avoid)

Green Light Laser

Where is used:

- Benign prostate for outlet obstruction
- Prostate cancer patient with obstructive issues: Pre Brachytherapy & Pre External Beam Radiotherapy
- Post Radiotherapy: bladder neck stricture and Radiation Induced bleeding (beware of Xareoleta)

Advantage:

- No need to stop any anti coagulation
- Small instrument compared to Gyruus or traditional TURP
- Almost no bleeding
- Most go home after one night (unless they're over 80 years old)
- Must take it easy for 4 weeks (reactionary bleed especially on blood anticoagulation)



3. Latest Improvements in Radiation Therapy for Prostate Cancer – Impact of Technologies

Dr Marcus Foo (Radiation Oncologist)

External Beam Radiotherapy

- Painless
- Mostly non-invasive
- Every day, 5days/week
- 7.5-8 weeks, daily treatment (37-39 treatments [or fraction])
- 74-78 Gray/37-39 fractions
- 5 minutes/day (30 mins/day)
- Patients are NOT RADIOACTIVE

Dose-escalated imaged-guided intensity-modulated EBRT (IGRT-IMRT)

- Insertion of Gold-fiducial markers
- Antibiotics
- TRUS-guided insertion of 3 gold seeds
- Gold seeds are used to accurately target cancer with radiation.

Stereotactic Body Radiotherapy

- High dose radiation
- <5-10 fractions

SBRT for Prostate Cancer

- Predominantly for “oligo-metastatic” deposits, i.e. 3-6 mets only
- Bone
- Nodal
- Trials
- ?Prostate primary?

4. What's New In Metastatic Prostate Cancer

Dr Sanjeev Sewak (Medical Oncologist)

Results of 3 randomized chemotherapy trials in hormone naïve prostate cancer

In fit patients presenting with advanced cancer, early introduction of chemotherapy with Docetaxel is associated with substantial improvement in overall survival. Careful selection of patients suitable for this treatment is required.