ASM
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Perth Convention and Exhibition Centre

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UROLOGICAL SOCIETY OF AUSTRALIA AND NEW ZEALAND

ANZUNS
Australia and New Zealand Urological Nurses Society Ltd

FOCAL THERAPY FOR PROSTATE CANCER

A/PROF PETER ROYCE

UROLOGY SURGEON, CABRINI HEALTH

CONSTRUCTIVE DISRUPTOR

MELBOURNE, AUSTRALIA

- Localised prostate cancer has traditionally been treated with radical whole gland treatments, surgery or radiation using various techniques, or with active surveillance for low risk cancer.

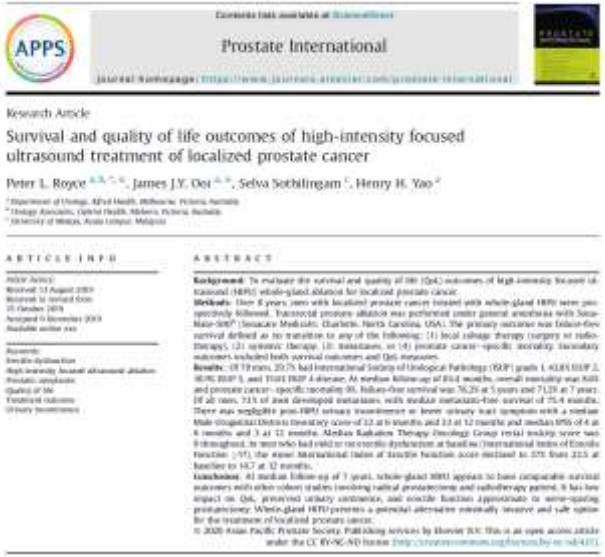
- Focal therapy fits between these options of radical treatment or surveillance, for carefully selected cases.

- Focal therapy offers excellent preservation of urinary/sexual QoL, while keeping the patient on surveillance.

- Focal therapy does not exclude further radical treatment in the future.

- I have used Sonablate HIFU for prostate ablation since 2006, and published the outcomes for Whole Gland Ablation in 2020.

- Whole Gland Ablation produced 7-10 years outcomes of,
  - Overall Survival 91.4%
  - PCSS 100%
  - Metastasis Free Survival 92.9%
  - Free of Further Treatment 71.2% at 7 Years
  - Urinary Incontinence, Any pads Minimal, Devices 0
  - Erectile Dysfunction (IIEF-5 < 17) 42% at 24 months
  - Rectal Fistula 1 Patient, Successfully Repaired
  - Urethral Stricture 1.4%



APPS

Prostate International

Research Article

Survival and quality of life outcomes of high-intensity focused ultrasound treatment of localized prostate cancer

Peter L. Royce, James J.Y. Ooi, Selva Sothilingam, Henry H. Yao

ARTICLE INFO

ABSTRACT

- Since the use of prostate MRI, PSMA PET imaging and Transperineal Prostate Biopsy it has been possible to map the location of prostate cancer with sufficient accuracy to introduce Focal Ablation for carefully selected men.

- I have used Focal/Partial prostate HIFU ablation since 2015 and Nanoknife ablation since 2022.

- There are other focal therapy modalities such as Laser, Cryo, Brachy seeds, Tookad, Microwave.

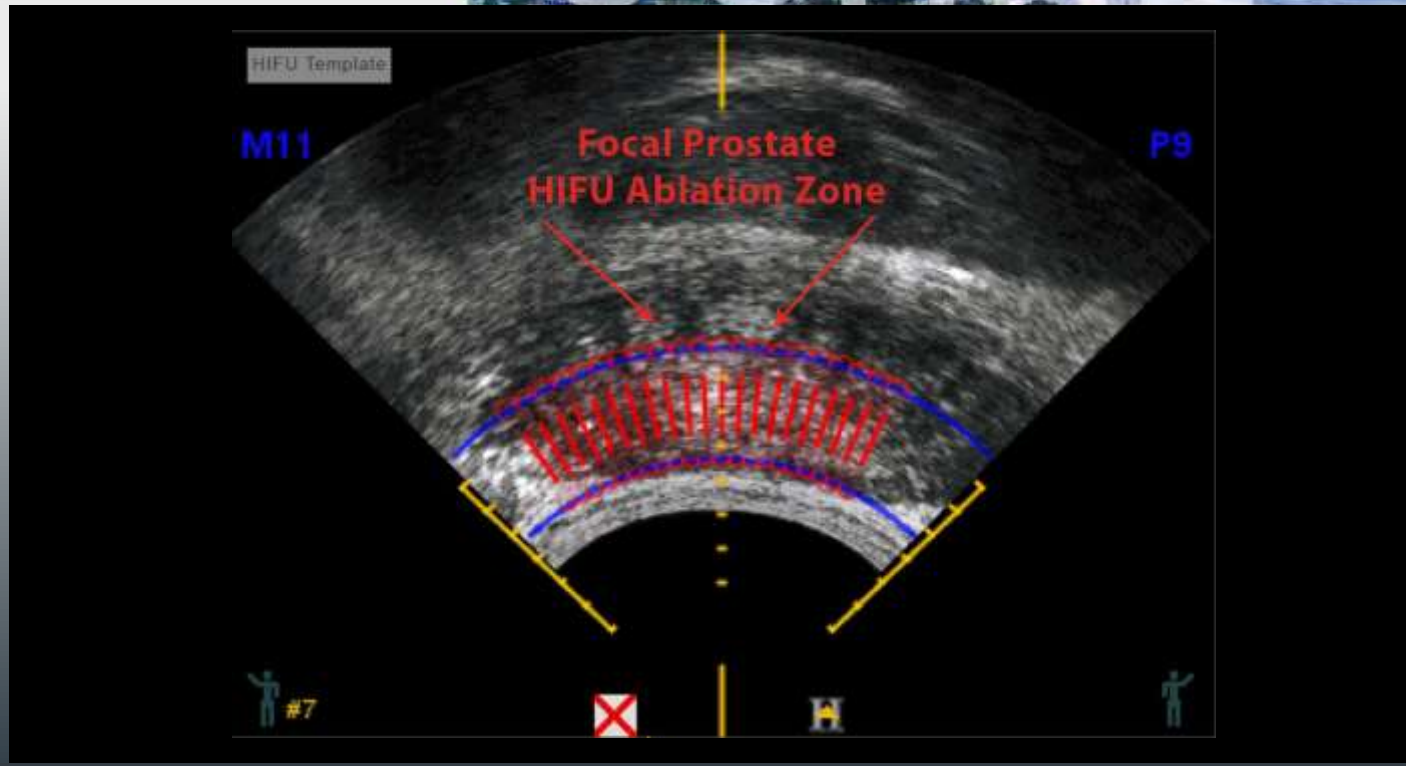
My Current Treatment Strategy

- HIFU ablation for tumours in the posterior prostate, within the 3-4 cm focal length for the HIFU transrectal probe.
- Nanoknife ablation for tumours in the anterior prostate where the HIFU can’t reach.
- Nanoknife ablation where prostate calcification >3mm adjacent to tumour.

Advantages Of HIFU Ablation

- HIFU is very flexible in application for ablation. HIFU can be used to ablate a small tumour or extended to ablate the bilateral peripheral zones. I can prescribe a treatment plan for the individual patient.
- HIFU is powerful, accurate, safe esp near to rectal wall (Sonachill), can treat the prostate apex excluding the urethra and sphincter.
- HIFU ablation is instantaneous, immediate side effects are minimal, IDC for 6 days, recovered in 2 weeks.
- No surgery, anatomical structures remain intact.
- No radiation or ADT, no late onset toxicity problems.

Advantages Of HIFU Ablation



Case Selection For HIFU/Nanoknife Ablation

- Most of my patients are Second Opinions, they have already consulted 1 or more Urologists, RONC, MONC and have declined radical treatments b/c of QoL issues.
- Unfortunately Robotic surgery has not significantly changed the risks of incontinence and sexual dysfunction after surgery, otherwise FT would not be contemplated.
- Men on Active Surveillance for GG1 or GG2 Prostate cancer, are having anxiety, repeat biopsies, and some are advised proceed to radical treatments.

Case Selection For HIFU/Nanoknife Ablation

- PSA < 20.
- MRI scan PI RADS 3-5 with no ECE, no SVI, no pelvic mets.
- PSMA PET scan with avid primary tumour and no mets.
- TPBx with Target Bx and Segmental Bx.
- GG2 Gleason 3+4, 4+3 are the majority of cases.
- GG1 Gleason 3+3=6 are few cases.
- Often a combination of GG1 and GG2.

Case Selection for HIFU/Nanoknife Ablation

- Pre HIFU ablation office TRUS to check prostate volume and prostate calcification. If there is calcification >3mm in proximity to ablation zone, then not suitable for HIFU since sonic energy will be reflected.
- If IPSS > 15 and/or Uroflow Qmax < 15 ml/sec, then counsel patient for possible TURP after HIFU, if unable to void.
- Complete EPIC-26 QoL Patient Survey as baseline, assess urinary, sexual, rectal domains.
- Discuss all patient questions at more than 1 consultation.
- Obtain Informed Financial Consent, since HIFU and Nanoknife not covered by Medicare or Private Hospital Insurance.

Post HIFU/Nanoknife Schedule

- Day case/Overnight hospital stay.
- Trial of Void in office Day 6 on Tamsulosin for 30 days.
- PSA at 6 weeks, expect PSA lower but not to zero.
- MRI scan after 4-6 months, expect PI RADS 2, tumour not evident, replaced with scar tissue.
- MRI scans at 12 monthly intervals.
- No repeat TPBx unless a clinical indication based on serial MRI scans.
- EPIC-26 PROM survey at each review, data entered into Redcap HEAT HIFU Registry.