Focal Therapy for Prostate Cancer- An Update

Mr Mohammud Shakeel Inder MD. MCh. FRCS(Urol)

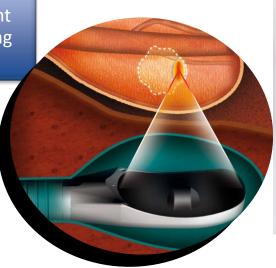
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HIFU: High Intensity Focused Ultrasound



Delivery of high intensity ultrasound energy- Lead to a Rapid rise in intracellular temperature and thus leading to instant cell death, while preserving surrounding tissues







Candidates for Focal Therapy

Clinical

- PSA </=20ng/ml
- Radiological T3aN0M0
- Lesion no more than one quadrant on MRI

Histology

- Gleason 7 (4+3 or 3+4)
- Maximal Gleason 4+4 on targeted biopsies provided lesion is Gleason 7 is permitted
- Gleason 3+3=6 if >/=6mm and MRI lesion 3, 4 or

40% of patients: Suitable candidate for Focal Therapy

90% of patient:
Choose Focal
Therapy over
Radical Treatment



Focal Therapy Outcomes

Summary of treatments for men with intermed ate or high risk prostate cancer suitable for radical and focal therapy

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Type of treatment	Mechanism	Number sessions	Urine leakage (any pad use)	Urinary symptoms (frequency, nocturia, urgency)	Erectile dysfunction	Dry orgasm	Back- passage symptoms	Rectal injury	Need for another type of cancer treatment (5-10 years)	Need for another type of cancer treatment (10 -15years)	Cancer- specific survival (5-10 years)	Cancer specific survival (10-15 years)
Prostatectomy	Whole prostate removal using surgery	Once	10-25%	5-15%	30-60%	100%	1%	Rare	5-10%	10-15%	99-100%	>97%
Radiotherapy (external beam)	Whole prostate from outside	20 to 37 weekdays	5%	5-15%	30-60%	100%	5-15%	Rare	5-10%	10-15%	99-100%	>97%
Radiotherapy (brachytherapy)	Whole prostate irradiation from inside	Once	5%	5-15%	30-60%	100%	5%	Rare	5-10%	10-15%	99-100%	97%
Focal Therapy	Heat (HIFU) or freeze (cryotherapy) cancer area	70-80% once. 20-30% twice	1-2%	5%	5-20%	50%	<1%	Rare	5-10%	Not known	99-100%	Not known



Beacon Focal Therapy Unit- Referral Pathway

Focaltherapy@beaconhospital.ie

- A referral letter (GP or Urologist)
- 2. MRI report
- 3. Prostate Biopsy Pathology report
- Details of hospital where MRI and biopsy were performed
- Case discussed at Beacon Urology MDT
- Outpatient clinic review





HIFU cases performed at Beacon Hospital

Case 1

57 years old

PSA 5.7; DRE: cT1c

MRI:10mm PI-RADS 4 lesion Right Anterior Apical

Histopathology:

Right Anterior Apex Target: 3/6 cores; G 3+4; 95% core involvement; MCL 5mm

Ablation: Right Extended

Quadrant





HIFU cases performed at Beacon Hospital

Case 2

58 years old Male

PSA 4.9; DRE: cT1c

MRI: 1 1mm PIRADS 4 Nodule Right PZ Posterior MG

Histopathology:

Right Anterior (Apex): 2/2 cores; G 3+3; MCL 4mm Right Posterior (Base): 3/6 cores; G 3+4; MCL 10mm

Ablation: Right Hemiablation





Patient Experiences-Quality of Life

Week 3 i returned to work, which i was very grateful for, Administration duties only but i did feel comfortable to move around for short periods of time which gradually increased.

After the procedure I gradually began walking again, by day 7 just short of 5,000 steps. After the catheter was removed I was able to increase to 10,000 steps within a week or so, and back to 12,000 steps after a couple of weeks. I had no difficulty with this

With the exception of immediate post operative recovery, my quality of life has not been affected to any significant degree. I have returned to work after 6 weeks and have had no issues with fulfilling my role.

Plenty of walking through the week and playing golf at the weekends, also socialising and all the normal activities i did before the surgery.



Patient Experiences- Urinary Function

The catheter was removed on day 8 with no issues.

Afterwards urination was quite normal, with some frequency and urgency, but nothing of concern. Both of these improved steadily over the following weeks and flow has improved to being somewhat better than prior to the procedure.

have any leakage and don't need to wear pads anymore, which is great news. I still have some bleeding before and after peeing and some small discomfort, but all going well and no incontinence as at time of writing.

Again, with the exception of post operative recovery, my urinary function has returned to normal. I had no pain or bleeding post-surgery, or post removal of catheter.

A fairly high frequency in urinating during the day, not much feeling to urinate throughout the night though, sometimes the flow is good other times its weak.

But i do feel good and with little or no side effects and thank you for that.



Patient Experiences-Sexual Function

Erectile Function and Orgasm On the night of the surgery I awoke with a night time erection, which was very reassuring if not very comfortable. Mr. Indeer advised on a call two weeks after

At this time, 6 weeks after surgery, my erections are weaker than before surgery (say 80% as strong) but this has been improving and well as maintaining for longer and I am hoping that this will continue to improve. I am doing pelvic floor exercises @10 at a time / 3 times per day.

No particular issues and function returned a few days after the removal of the catheter. A first there was quite a lot of blood, which decreased steadily to none by week four or five. Volume of semen is less then in the past. Generally no issues maintaining an erection

I was very reluctant for the first 2 months as there was still traces of blood in my Urine and semen. Erections are about 60%. I did use a tablet to achieve an erection which worked and was able to copulate. I have noticed now that dry ejaculations occur about 1 in every 3 times. So, i think going forward on that note some pharmaceutical assistance might be required.



Beacon Hospital



Beacon Hospital Prostate Diagnostic Centre

- Beacon Focal Therapy Unit
- 2. Beacon Rapid Access Prostate Clinics



Beacon Hospital Prostate Diagnostic Centre

Electronic RAPC referral received- Day 0

Consultation with MRI results < Day 14

Prostate Biopsy and MDT Outcome < Day 31

Treatment and Completion of pathway < Day 62

Beacon Rapid Access Prostate Clinics

- Launch in February 2025
- Healthlink RAPC Referral
- Patient-Centered Care
- Easy Access
- Timely Diagnosis & Treatment



Thank you

Focaltherapy@beaconhospital.ie

