

Comment

Focal therapy for prostate cancer – when to refer?

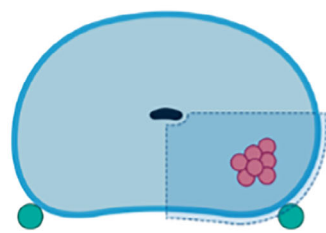
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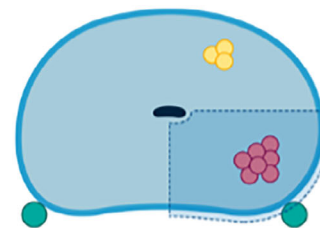
Focal therapy (FT) for prostate cancer utilising high-intensity focused ultrasound and cryotherapy has been available in the UK under National Institute for Health and Care Excellence (NICE) guidance special arrangements for over a decade (interventional procedures guidance [IPG] 756 and IPG 423, respectively), with irreversible electroporation recently added (IPG 768).

Few centres in the UK provide these treatments; however, availability of FT in the UK is expanding with the launch of the Partial prostate Ablation vs Radical prostatectomy (PART) trial [1]. It is open for UK centres and participants to join hoping to recruit 800 patients from multiple centres [2].

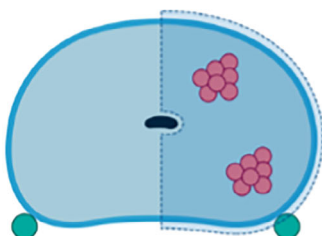
The aim of FT is to deliver oncological control for patients with predominantly intermediate-risk localised prostate cancer, whilst minimising impact upon genitourinary function. It involves precision energy delivery and subsequent ablation of diseased areas of the prostate, with a surrounding margin of 8–10 mm, sparing treatment to adjacent tissue, at least one neurovascular bundle and the extreme apex. Typical ablation patterns include hemi or quadrant ablation but can include anterior or hockey-stick treatments; depicted below. Combining image fusion to treatment platforms allow for more conformal lesion ablation + margin strategies.



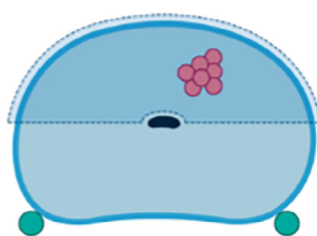
Quadrant ablation



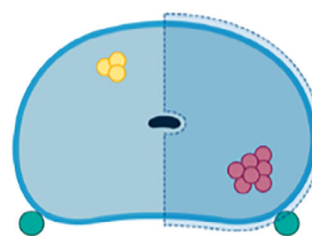
Quadrant ablation with untreated low risk disease



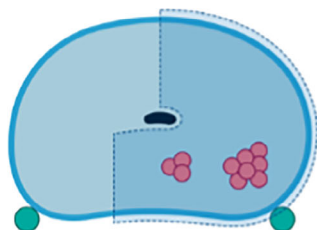
Hemi- ablation



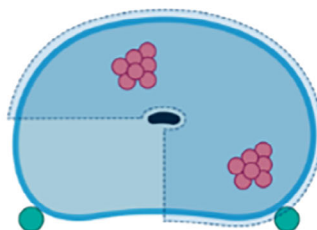
Hemi- ablation



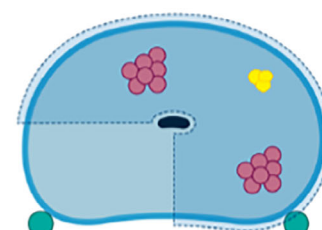
Hemi- ablation with untreated low risk disease



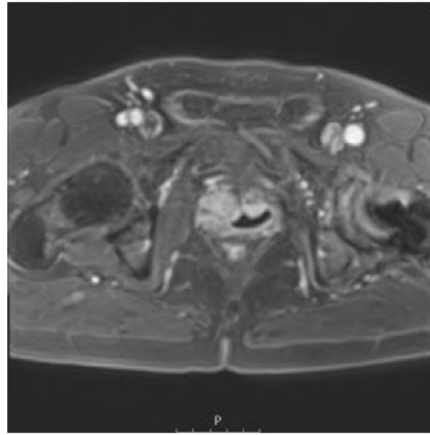
Hockey- Stick ablation



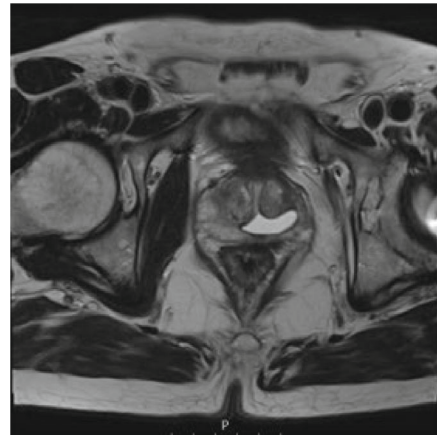
Hockey- Stick ablation



Hockey- Stick ablation with included low risk disease



Axial Image



Dynamic Contrast Enhanced Axial Image

Ideal patients for FT are those with significant prostate cancer with a visible lesion on multiparametric MRI (mpMRI) and concordant International Society of Urological Pathology (ISUP) Grade Group 2 or 3 cancer on targeted and systematic biopsies. Patients with untreated contralateral Gleason Grade Group 1 disease are not excluded from receiving FT as all patients following treatment are subsequently placed on active surveillance. A life expectancy of ≥ 10 years is required, although where this is uncertain the low side-effects of ablation make treatment decisions easier to contemplate in older men.

Follow-up involves regular PSA monitoring, mpMRI at 1 year and prostate biopsies if concerns of residual or recurrent disease, e.g., rising serum PSA \pm abnormal mpMRI appearance. Below images demonstrate post-treatment ablation of the left posterior peripheral zone.

Patients should be prepared to undergo additional mpMRI scans and understand they may require additional biopsies and, if needed, additional treatment. A second treatment is required for 20% of patients and considered part of the FT strategy. Repeat FT with the same or different modality may be offered with minimal impact upon genitourinary function. If repeat FT is not deemed appropriate, patients may be offered salvage radical radiotherapy or prostatectomy with minimal safety concerns at specialist centres [3].

The medium-term evidence demonstrates that FT (one or two ablation sessions) can provide oncological control comparable to that of radical prostatectomy [4]. Progression to metastatic disease is very low in all studies and no different to that seen in those treated by whole-gland therapies. Urinary incontinence is very infrequently experienced and erectile function is preserved in most men [5].

The NICE have now approved several FTs and they are very popular amongst suitable men. It is our view that in order to gain informed consent, following the principles established by the Montgomery ruling of 2015 [6], patients being considered

for any prostate cancer treatment who are suitable for FT, should be advised about such options and if interested, referred to specialist centres for consultation.

Disclosure of Interests

Nadia Rokan: none; Deepika Reddy: travel grant from Sonablate Corps and Imperial Healthcare charity; Tim Dudderidge: paid honoraria for teaching from Sonablate Corps and Boston Scientific.

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Abbreviations: FT, focal therapy; IPG, interventional procedures guidance; NICE, National Institute for Health and Care Excellence; mpMRI, multiparametric MRI.