Recurrent Prostate Cancer in Seminal Vesicles in a Patient with Brachytherapy: mpMRI and PSMA PET Findings

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75-year-old man with serum PSA=4.6ng/ml (S/P brachytherapy)

Restaging CT and bone scan are negative

There is no focal lesion in the prostate suggesting residual or recurrent prostate cancer

Axial T2W MRI

ADC map

b1500 DW MRI

DCE MRI
75-year-old man with serum PSA=4.6ng/ml (S/P brachytherapy)

There is a focal lesion in the right seminal vesicles (hypointense on T2W MRI with early enhancement on DCE MRI; ADC map and b1500 DW MRI are not contributing due to artifacts)

Focal tracer uptake within right seminal vesicle lesion

TRUS/MRI fusion guided biopsy=prostate cancer
Teaching Points

• Although seed artifacts are commonly observed, multiparametric MRI (mpMRI) can still be performed and may provide useful information for biochemical recurrence (BCR) following brachytherapy.

• PSMA PET/CT can be quite useful to detect residual/recurrent prostate cancers in BCR after brachytherapy due to its specificity.

• Residual/recurrent prostate cancers can be located at seminal vesicles in brachytherapy patients.

• Please carefully check not only the prostate but also the seminal vesicles at mpMRI and PSMA PET in brachytherapy patients with BCR.
References


