SAR Prostate Cancer DFP Teaching Case

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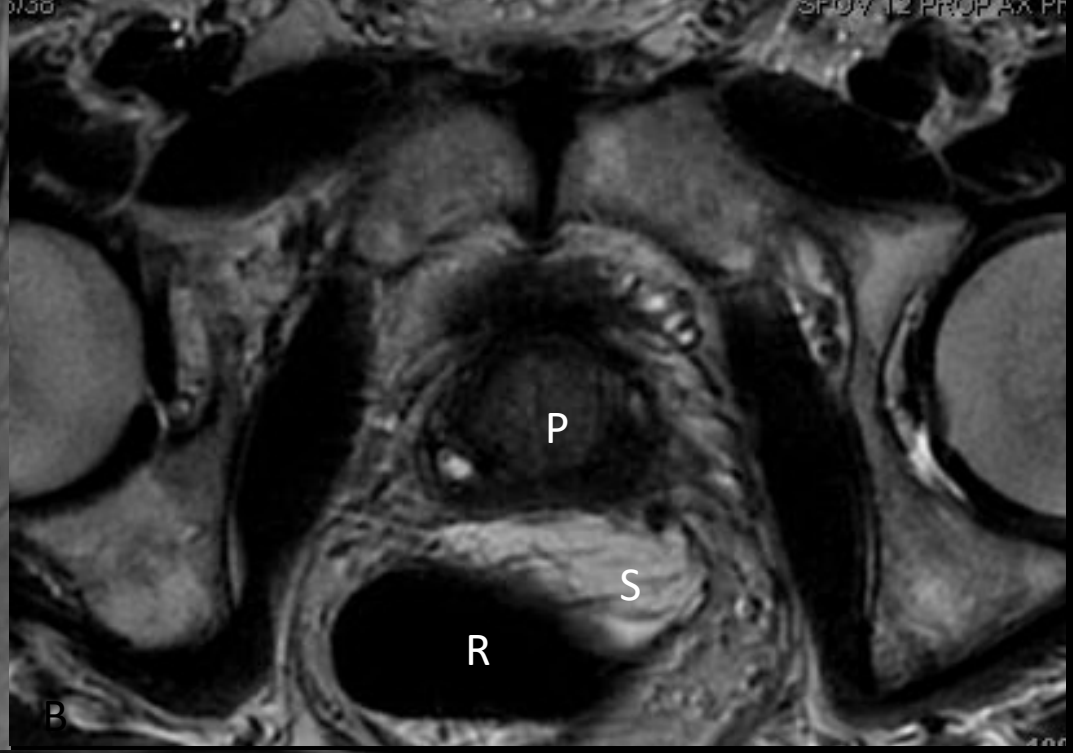
- 77 year old male with prostatic adenocarcinoma, clinical stage IIA and PSA of 5.6 ng/ml.
- Prostate biopsy: GS 3+4 in 2 cores, GS3+3 in 1core, total 3/12 core.
- MRI with PI-RADS 5 lesion without extracapsular tumor extension, seminal vesicle invasion or pelvic lymphadenopathy.
- Patient chose to undergo definitive EBRT (IMRT).


S
P
R
A


P
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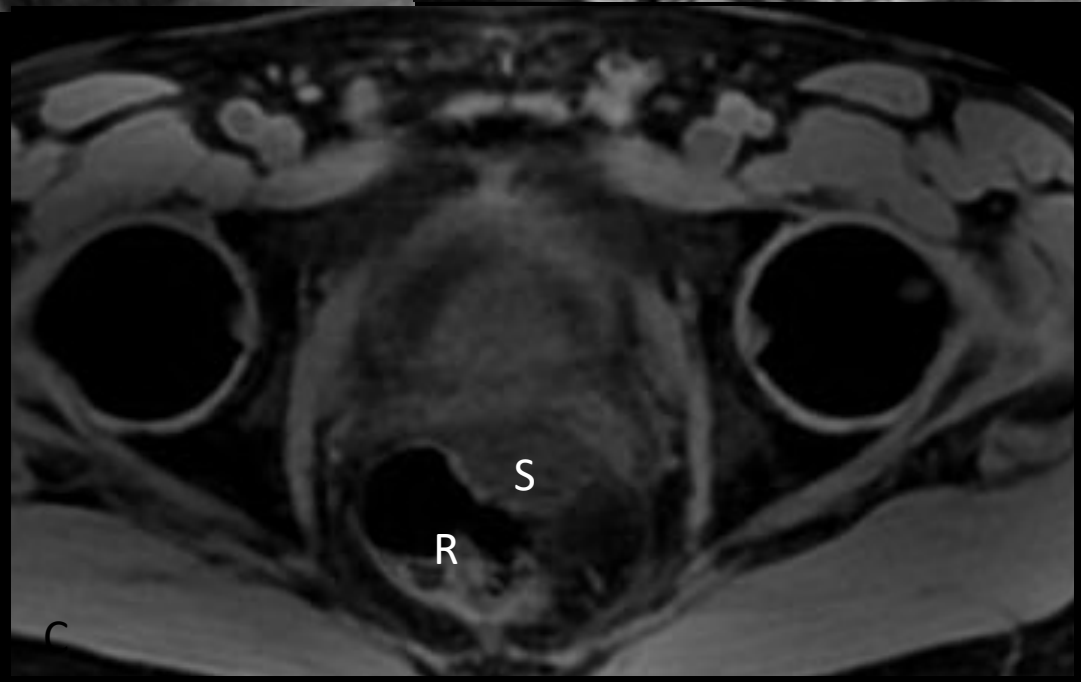
S
R
C

MRI findings:

- Sagittal (A), axial (B) small FOV T2 weighted MRI images and axial T1 GE fat sat (c) MRI image demonstrate T2 high signal intensity and T1 low signal intensity hydrogel spacer between the prostate and rectum.
- P=Prostate, R=Rectum and S= Hydrogel spacer.
- Note asymmetric distribution of material at the base and to the left.

Radiation therapy planning

- Hydrogel spacers are used in the management of low- and intermediate-risk prostate cancers that are treated with dose-escalated IMRT to minimize rectal and GI toxicity.
- MRI plays an important role in confirming the correct placement of the hydrogel spacer before dose-escalated IMRT.
- The appropriate location of the hydrogel spacer is in the midline posterior to the prostate gland extending from the apex to base.

Reference:

Role of MRI in the Use of an Absorbable Hydrogel Spacer in Men Undergoing Radiation Therapy for Prostate Cancer: What the Radiologist Needs to Know: https://www.ajronline.org/doi/full/10.2214/AJR.17.18026