

# SAR Prostate DFP

## Teaching case of the week 06/17/2019

### Role of prostate MRI after incidental diagnosis of prostate cancer on TURP specimen

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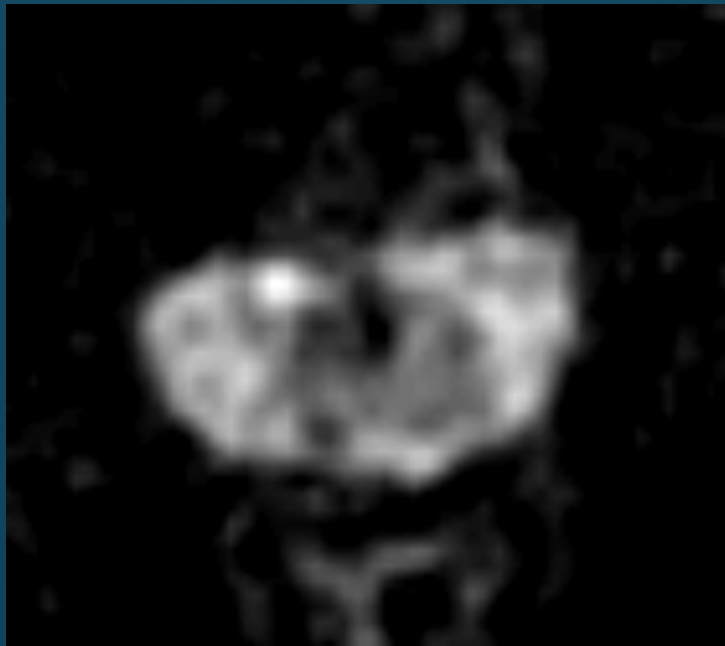
McGovern  
Medical School

# History

- 52 yo male
- Elevated PSA of 9.3 ng/mL and Gleason 3+4 prostate cancer in 25% of TURP samples



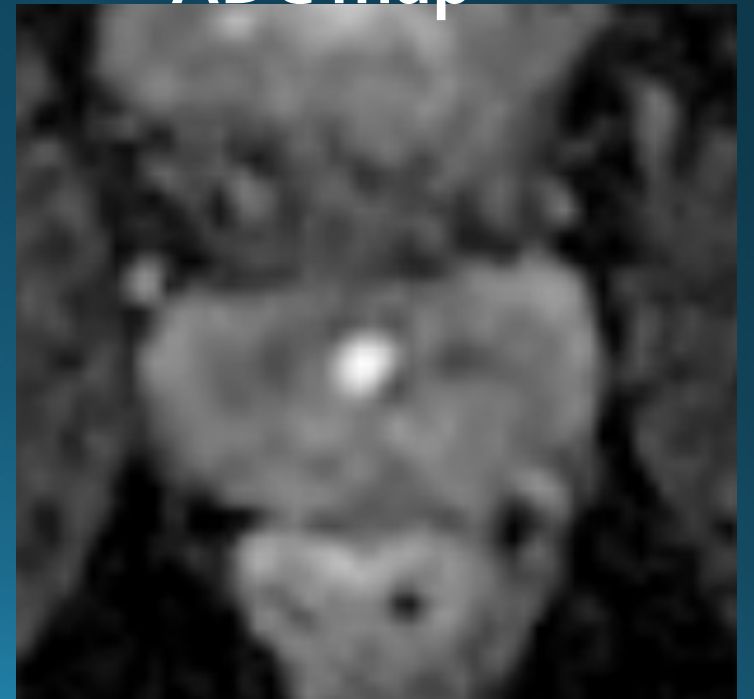
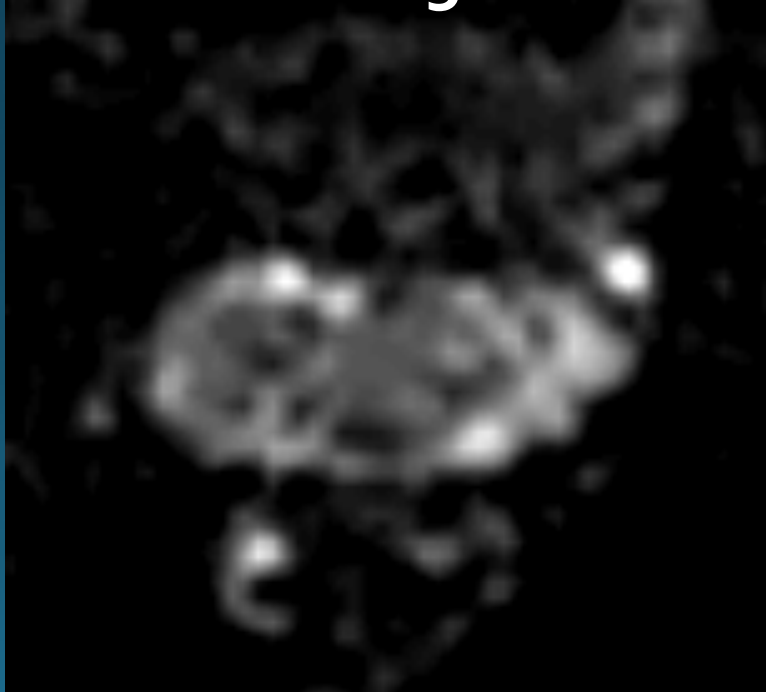
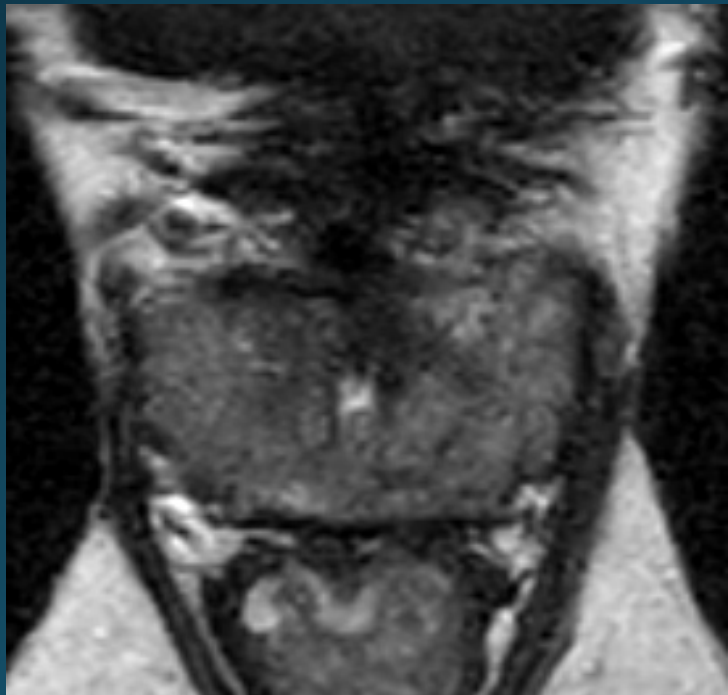
**Axial T<sub>2</sub>WI**



**DWI b<sub>1500</sub>**

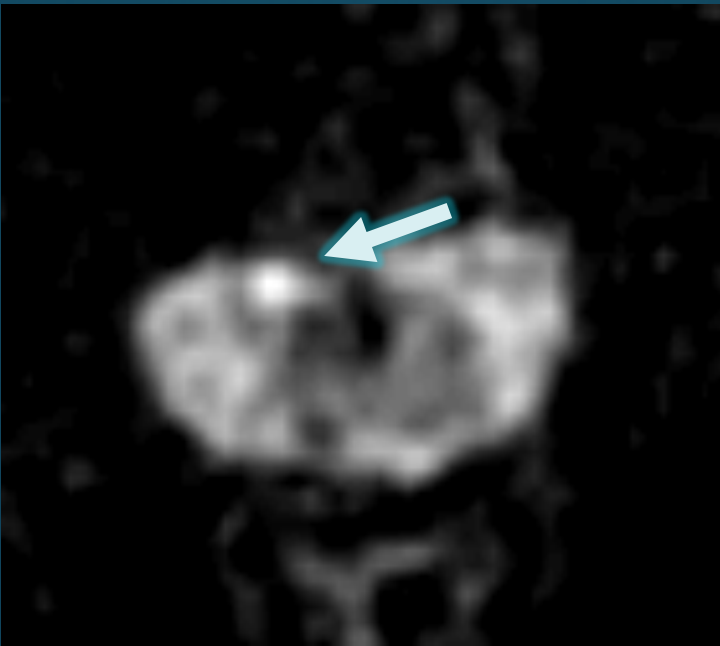


**ADC map**

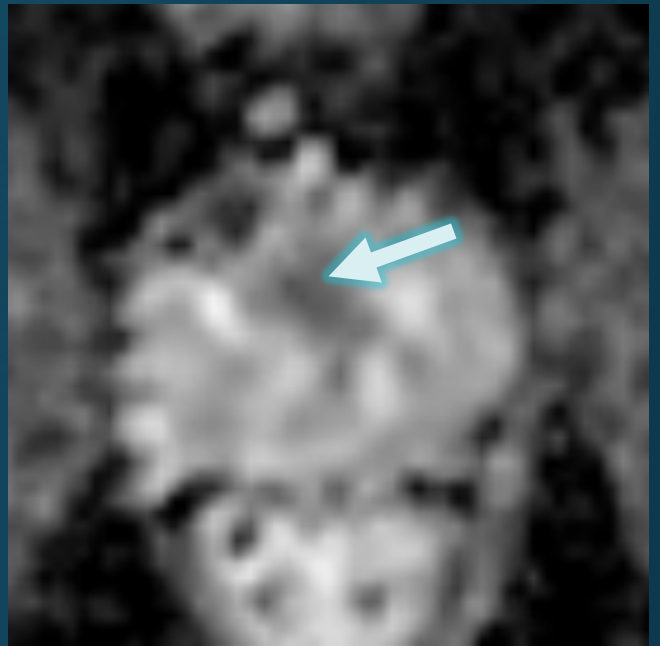




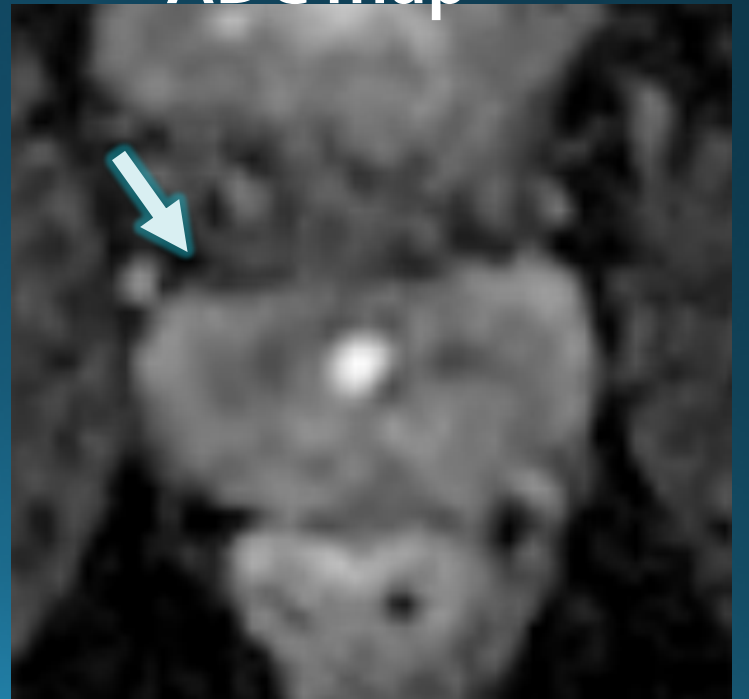
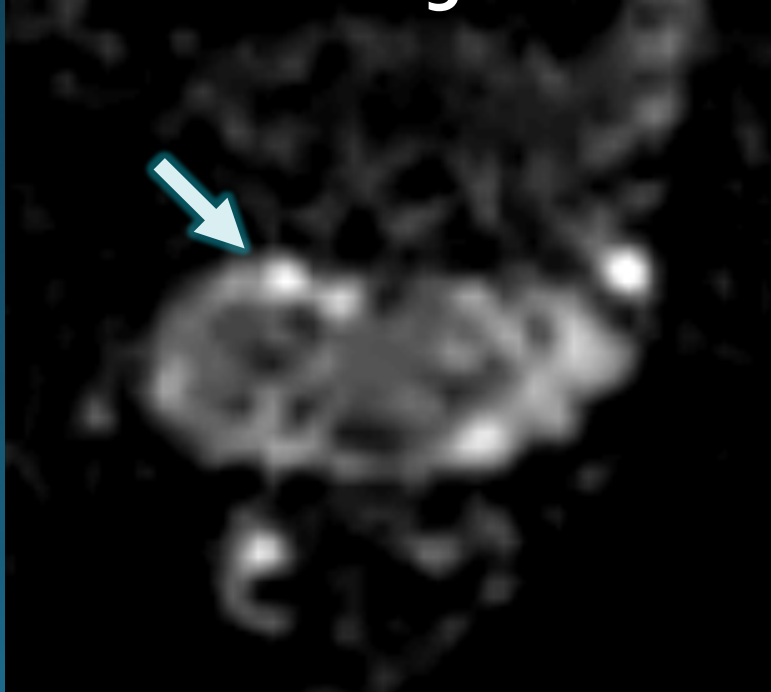
Axial T2WI



DWI b1500



ADC map

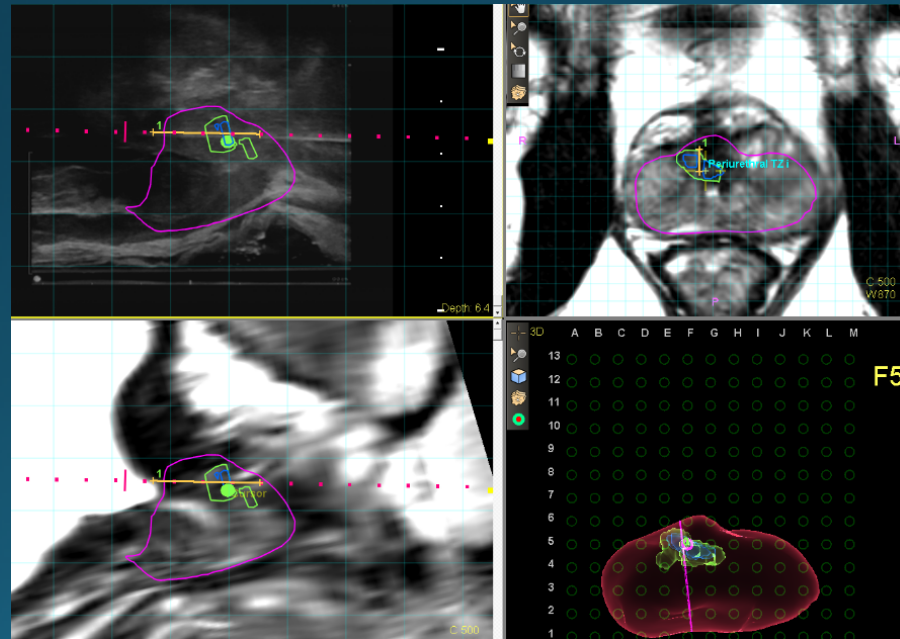


# MR Interpretation

- Right periurethral TZ: PI-RADS 4
- Likely, contiguous right TZ anterior base: PI-RADS 4

# MR-US fusion Biopsy results

- **Right periurethral TZ:** Gleason 3+4 = 7 in 4 mm, 1.5 mm and 20% of the core tissue
- **Rt TZ anterior base:** Suspicious for carcinoma



# Incidental prostate cancer in the TURP specimens

- Pre-PSA screening era: 27% incidence
- Modern PSA screening era: 4%-16% incidence
- Majority located in TZ
- Younger age <65 yrs and higher PSA levels have implications on oncological outcome

# Role of prostate MRI

- Defining extent and volume of tumor in TZ
- Upstaging or Upgrading of TZ tumor
- Exclude higher grade tumor in PZ in patients considering active surveillance
- May be performed prior to TURP in the setting of elevated PSA levels to detect prostate cancer
- Given the change in tumor volume/morphology after TURP and also periurethral location, detection on MRI is challenging and closer attention may be paid to this location.