



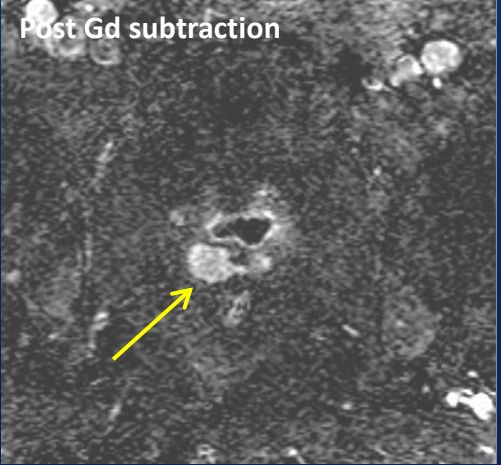
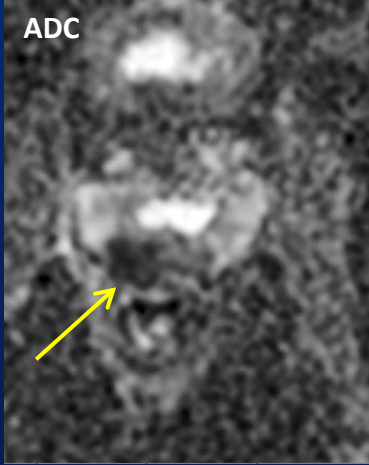
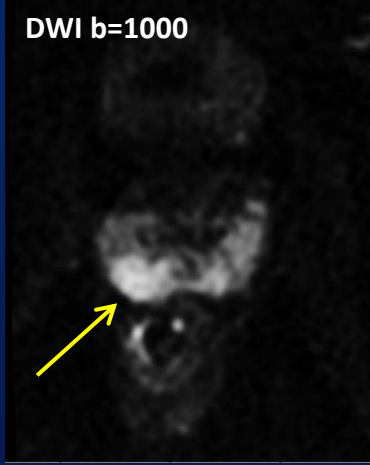
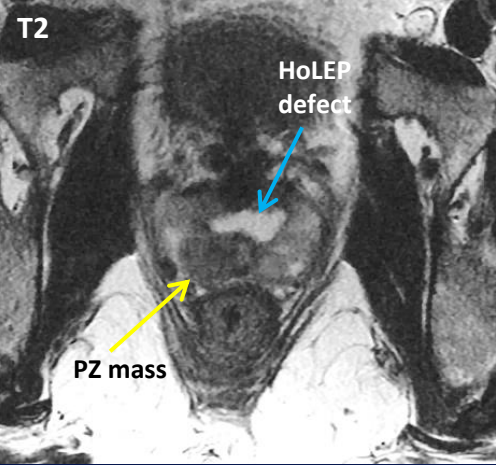
Incidental prostate cancer after HoLEP

Theodora A. Potretzke MD and Adam Froemming MD
Department of Radiology
Mayo Clinic Rochester

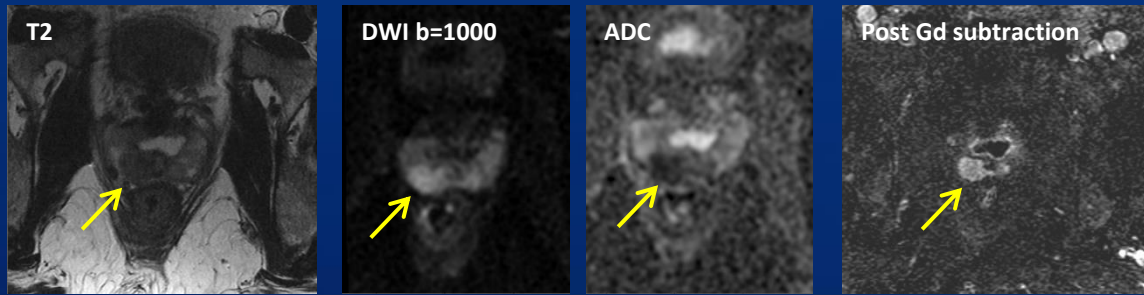
June 2019

79 year-old male, history of BPH

- Status post Holmium Laser Enucleation of the Prostate (HoLEP)
- Incidental small volume Gleason 3+3 prostate cancer on HoLEP specimen
- Pre-HoLEP PSA 1.6 ng/mL 1 year prior to HoLEP
- Post-HoLEP PSA 3.9 ng/mL



Findings



- Focal lesion right posterior peripheral zone mid-gland 2.5 cm

PIRADS Scoring:

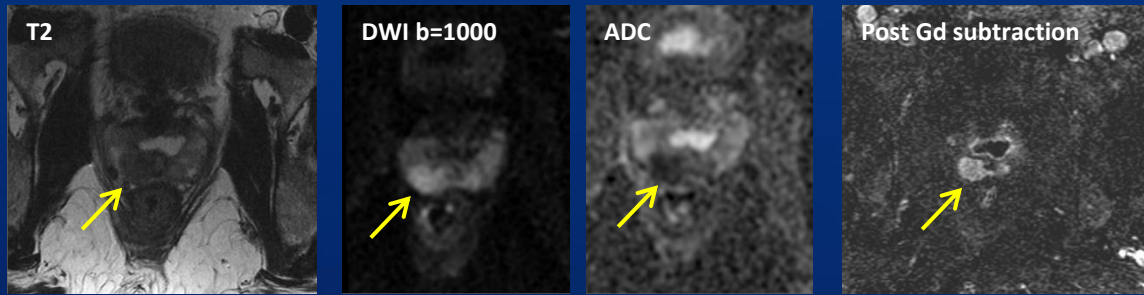
T2 5 Homogenously hypointense mass ≥ 1.5 cm

DWI 5 Focal markedly hypointense on ADC and markedly hyperintense on high b-value DWI ≥ 1.5 cm

DCE + Focal early hyperenhancement

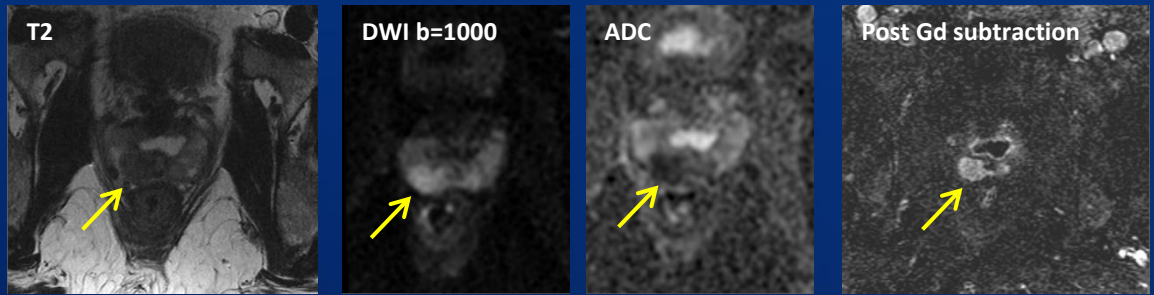
→ **PIRADS 5** – very high suspicion for a clinically significant prostate cancer

Pathology



- Targeted biopsy using MR-US fusion:
 - **Gleason 4+5 prostate adenocarcinoma**
- Biopsy also included cores of the rest of the gland which showed additional Gleason 4+5 disease in adjacent areas
- Patient to be seen by Radiation Oncology for consideration of external beam radiotherapy for his high grade prostate cancer

Teaching points



- Holmium Laser Enucleation of the Prostate (HoLEP) is a minimally-invasive transurethral procedure for BPH.
- Used most commonly in men with a severely enlarged prostate.
- An alternative to open prostatectomy in men with prostate > 100g where standard TURP may be staged and less effective.
- More tissue is removed than during TURP.
- Incidental prostate cancer is uncommon (~6%¹). Older age and higher preoperative total PSA density independently predict incidental prostate cancer after HoLEP.
- Incidental prostate cancer after HoLEP is usually low grade¹, like originally found in this case.