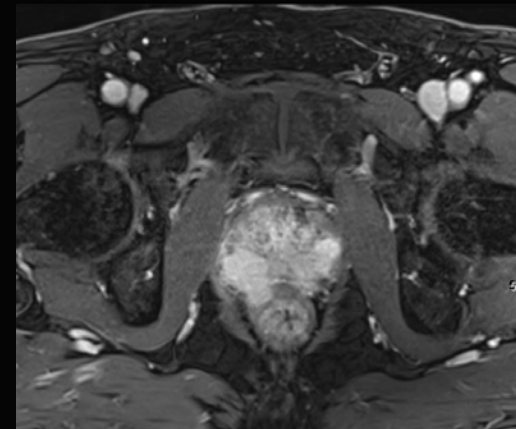
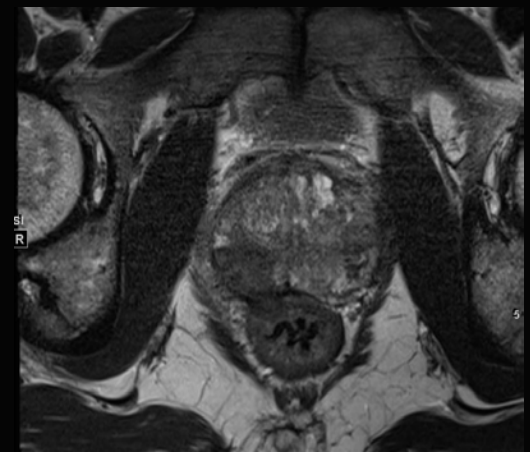
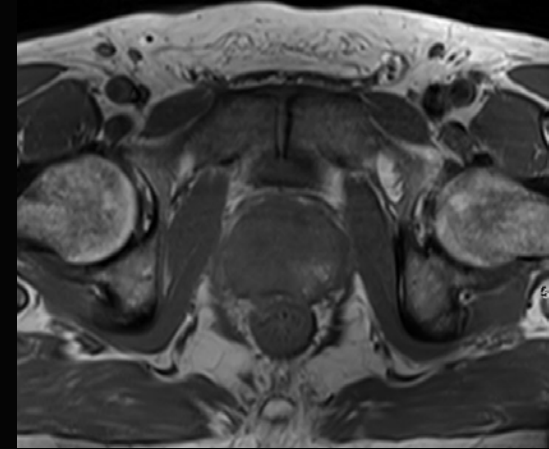




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Is it really prostate cancer?

H. Alberto Vargas
Mitchell Raeside



Clinical History

69 year old; PSA 6.5 ng/mL

Father deceased at 76 yo from metastatic prostate cancer

Recent hospitalization for presumed urosepsis

No lower urinary tract symptoms at present

Digital exam: 30cc prostate, large right sided nodule from the base to the apex, mobile rectal mucosa, stage cT3a

Prostate biopsy: Gleason 4+4=8 in 1 core, 3%, 1 mm



Prostate MRI: what are the findings?

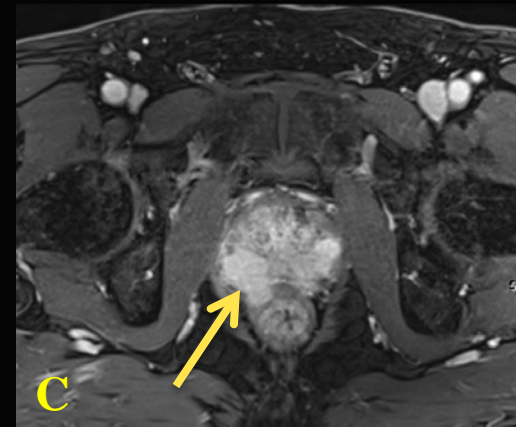
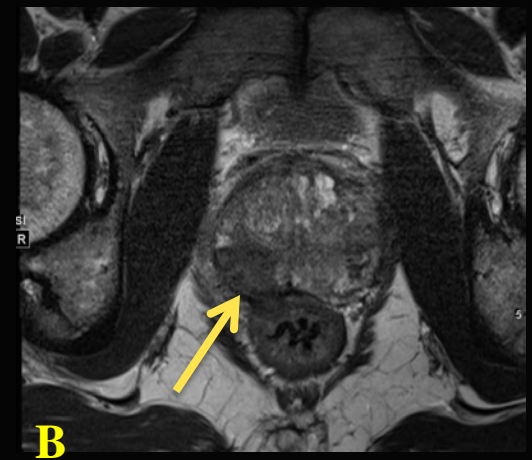
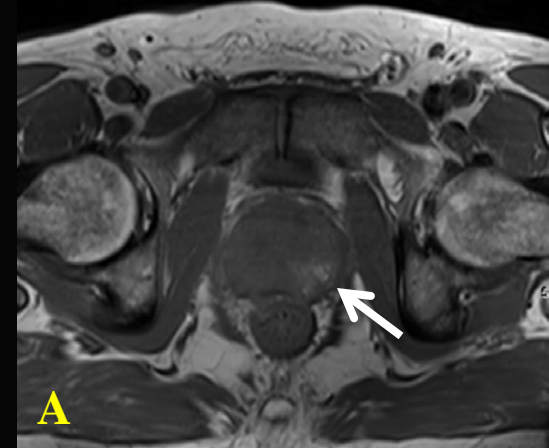


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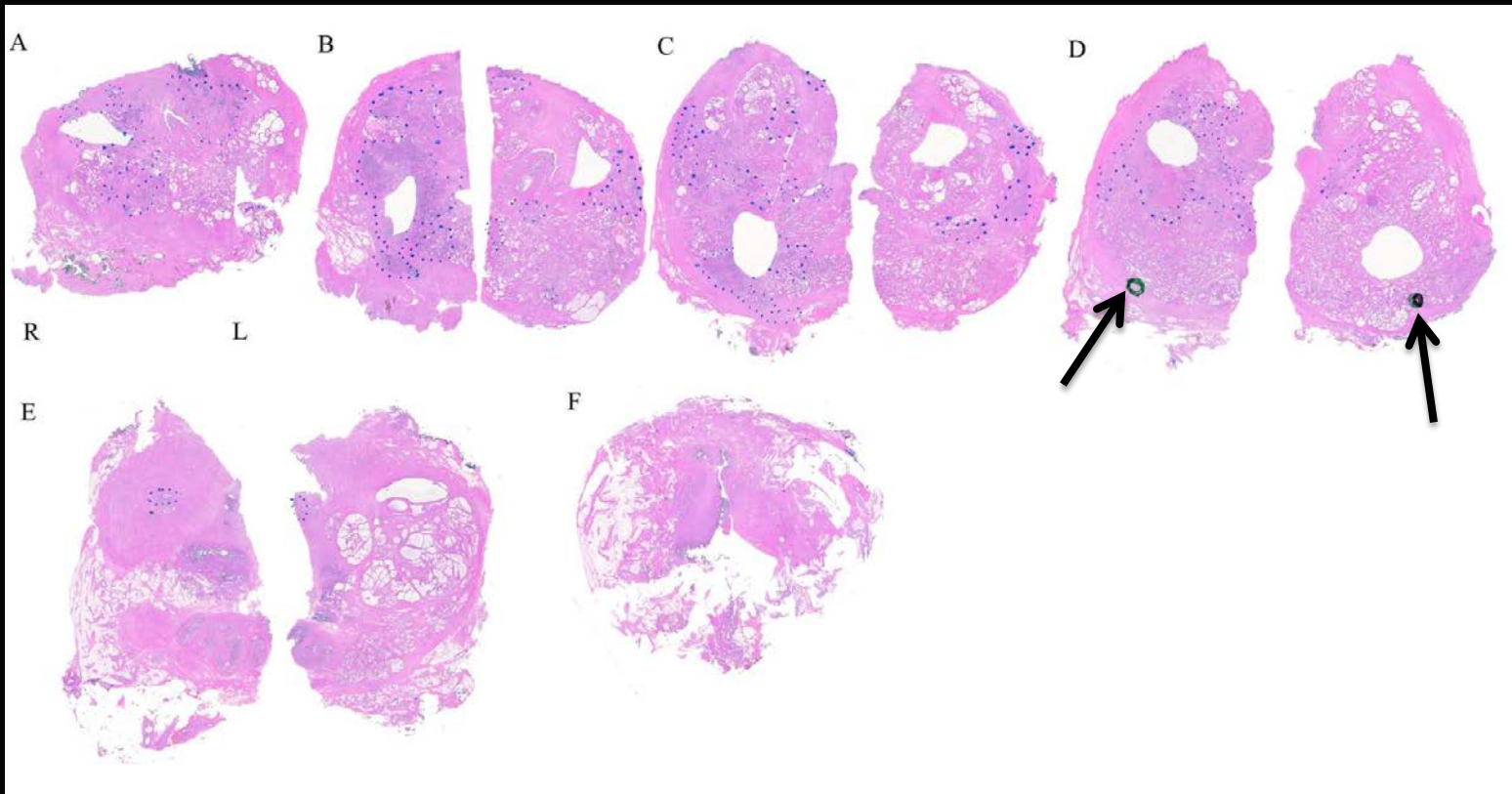
MRI Summary

Axial T1-weighted image (A) shows post-biopsy changes in the left midgland peripheral zone (PZ) (white arrow)

Axial T2-weighted (B) and DCE-MR (C) images at the corresponding level demonstrate a T2 hypointense enhancing lesion in the right peripheral zone with suspected extracapsular extension and rectal invasion (Likert/PI-RADS score 5) (yellow arrows)



Whole-mount prostatectomy Specimen



2 microscopic foci of Gleason 3+4=7 (arrows)

No extracapsular extension, no seminal vesicle invasion, negative surgical margins

Nonneoplastic prostate: chronic granulomatous prostatitis (outlined by blue dots)



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Discussion: Granulomatous Prostatitis

- Dominant lesions with Likert/PI-RADS score 4 or 5 are most likely to be prostate cancer in the correct clinical setting
- Granulomatous prostatitis is uncommon but can mimic prostate cancer
 - Low T2 signal mass / nodule
 - Restricted diffusion with low ADC
 - Extra-prostatic extension
- Causes:
 - Previous intravesical BCG therapy for bladder cancer
 - Tuberculous prostatitis
 - Previous intervention (TURP)
 - IDIOPATHIC



Discussion: Prostate Cancer Mimics

- Be aware of other pitfalls that may mimic or obscure cancer
 - Normal anatomic structures
 - Noncancerous benign conditions
 - Technical limitations of MRI

Benign Conditions That Mimic Prostate Carcinoma: MR Imaging Features with Histopathologic Correlation¹

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Abbreviations: ADC = apparent diffusion coefficient, BPH = benign prostatic hyperplasia, DCE = dynamic contrast-enhanced, DW = diffusion-weighted, H-E = hematoxylin-eosin, PSA = prostate-specific antigen

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Radiologist, Be Aware: Ten Pitfalls That Confound the Interpretation of Multiparametric Prostate MRI

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