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# Whoops! Handling Prostate SBRT Snafu's and Fireside Chat

*(Even Experts Aren't Perfect!)*



# WHOOOPS CASE

**63 yo male PSA 4.8 10/23**

**MRI-50cc prostate PR2, No ECE, SV, LN**

**Biopsy 2/12/24 GS 4+3 Left apex, R mid.**

**NYU Review downgraded to GS 3+4.**

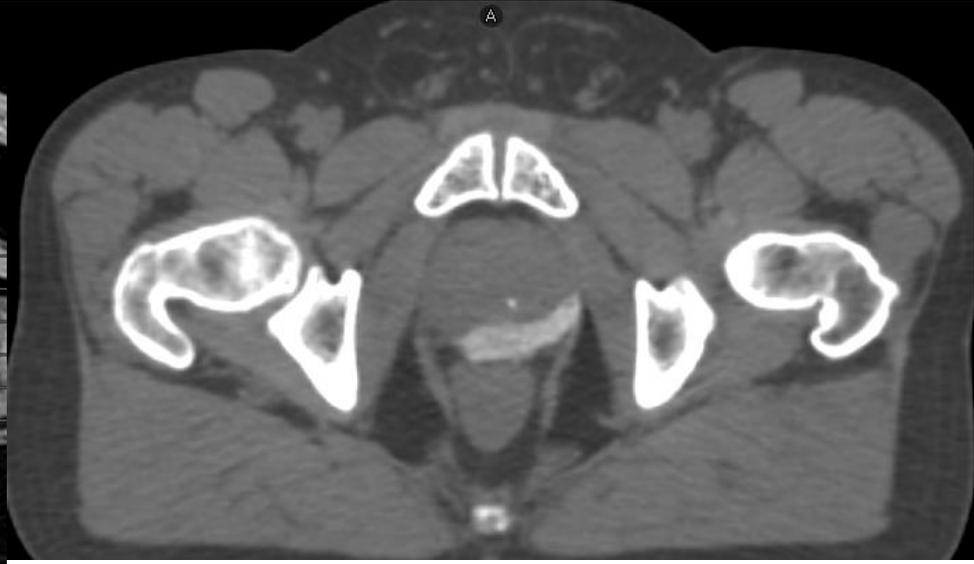
**Decipher 0.52**

**Patient opted for CK SBRT**

**Fiducials and Spacer placed by Urology 5/2/24**

# Planning MRI and CT

## 5/9/24



### IMPRESSION:

Hydrogel has been placed within the prostate capsule at the 5 o'clock location with 12 mm separation of the prosthetic peripheral zone and the rectum. This is causing extrinsic compression of the peripheral zone from the mid gland to the apex as above.

NY Health These findings were discussed with and acknowledged by Jonathan Haas, M.D., at 1424 hours on

Medicine

4

**Patient brought back for imaging beginning week 13 after placement**

**PSA checked on 8/24/24-3.12**

# Planning MRI and CT

10/10/24



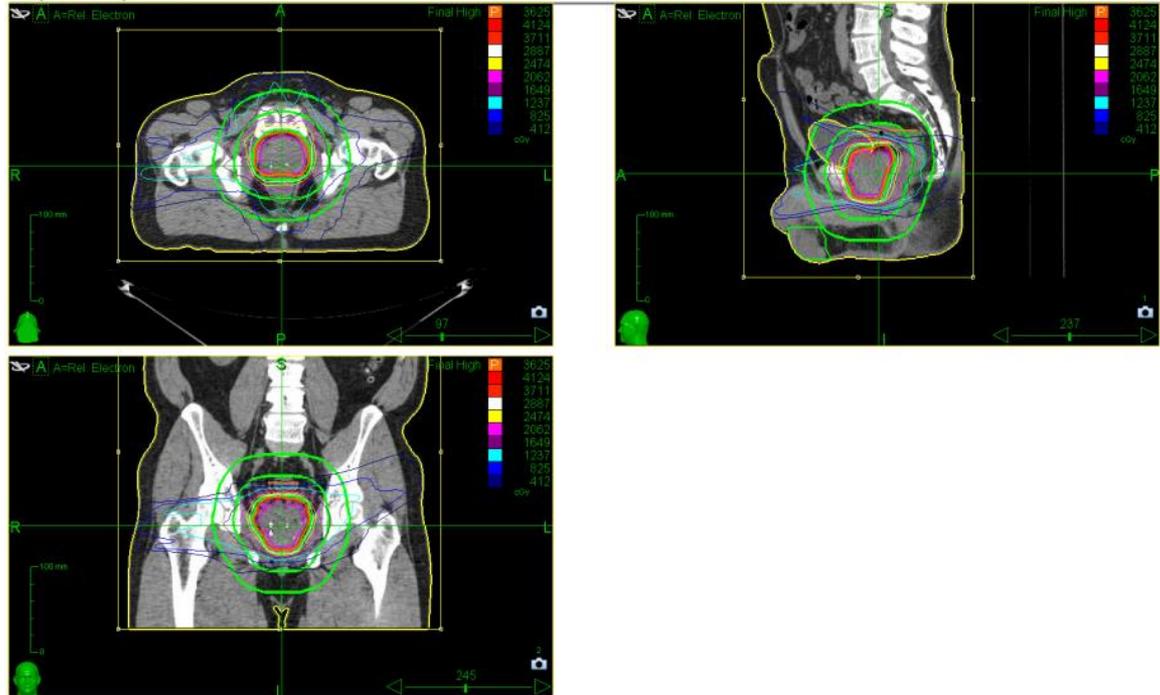
## IMPRESSION:

1. Fiducial markers in situ. No identified spacer material.
2. No focal lesion suspicious for significant prostate cancer: PI-RADS 2 - Low (clinically significant cancer is unlikely to be present).
3. No extraprostatic extension, seminal vesicle invasion, or pelvic lymphadenopathy.

# CK 3625 cGy/5fx (88.3%IDL)

## 10/22-11/1/24

Report Snapshots



**PSA 1/29/25 2.26**

**PSA 4/30/25 2.09**

**PSA 10/23/25 1.31**

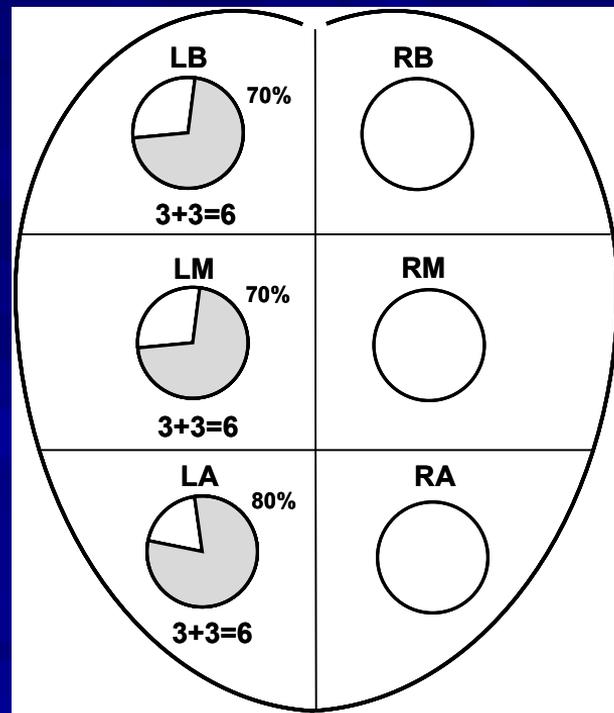
**Seen 11/20/25-Doing well**

# Q&A



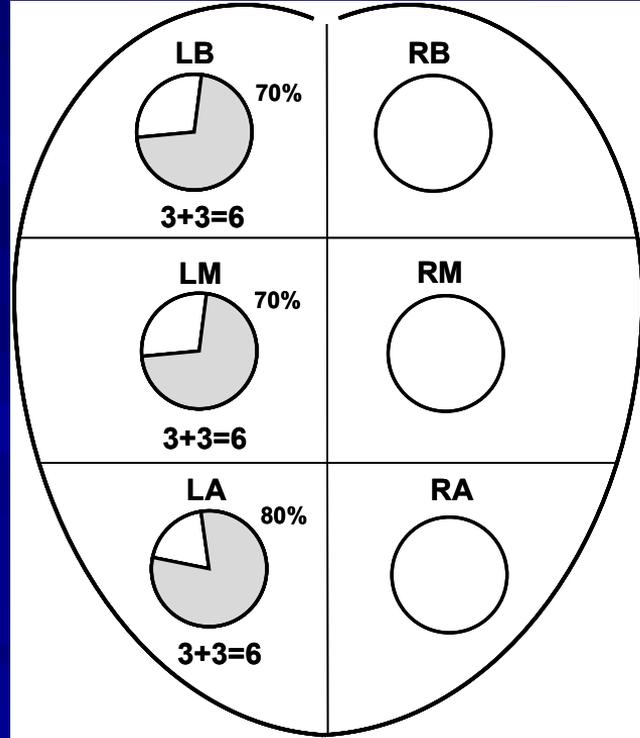
# Case Presentation

- 66 yo WM with CAD S/P CABG
- PSA 4.87 ng/ml
- DRE: enlarged (35 grams), T2b
- Biopsy: 3 + 3 = 6
- AUA score = 4
- SHIM = 17



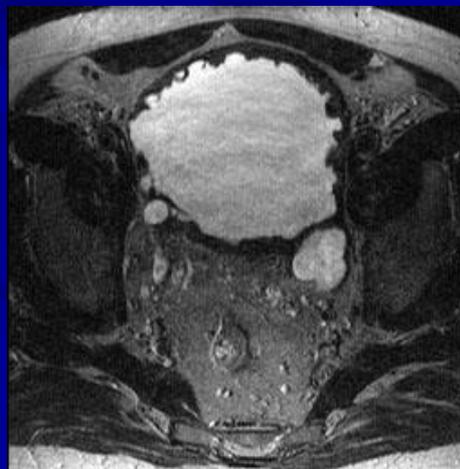
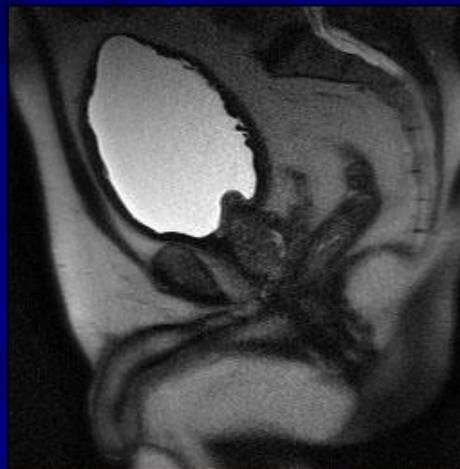
# Case Presentation

- Question:
  - Candidate for Active Surveillance?



# Case Presentation

- Lives two hours away from radiation facility
- SBRT
- Treatment planning MRI
  - Enlarged Median lobe
  - Chronic BPH
- Refused pretreatment TURP

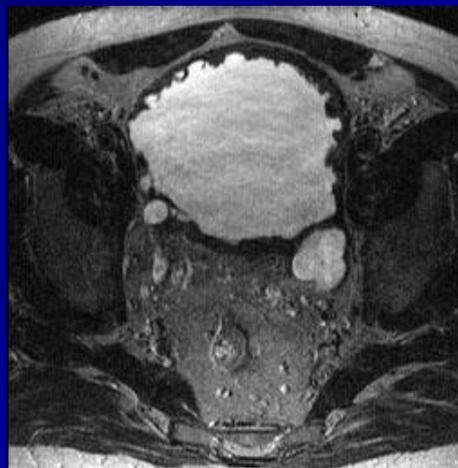
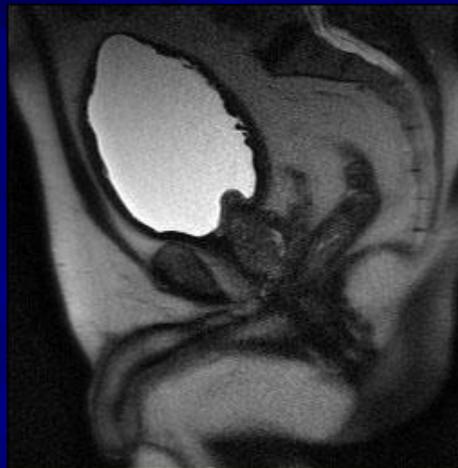


# Case Presentation

## ■ Question:

– Ideal Treatment?

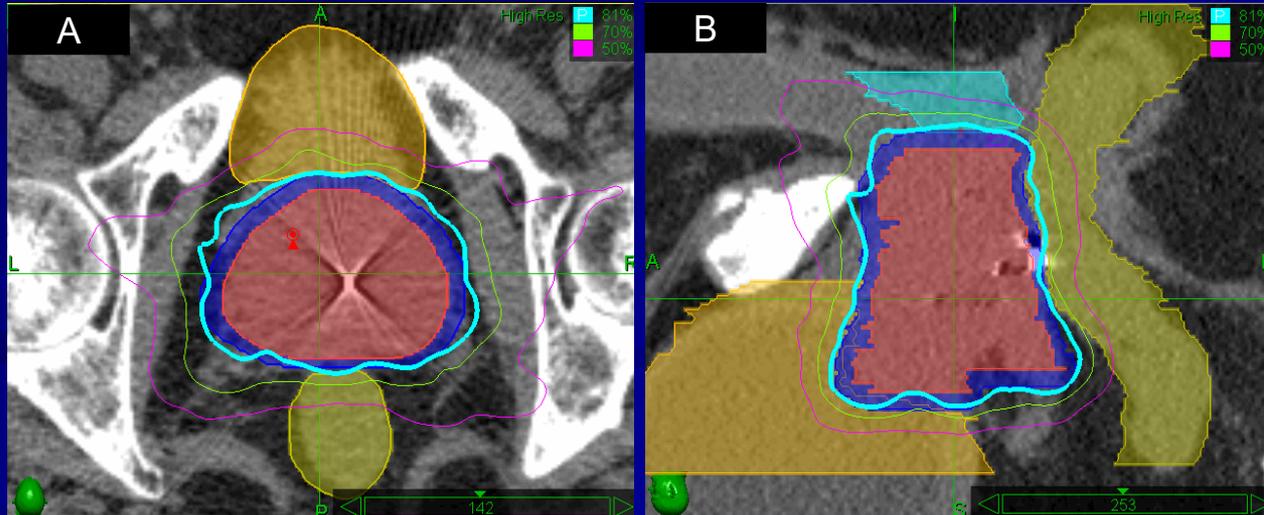
- Robotic Prostatectomy
- IMRT
- SBRT
- LDR Brachytherapy
- HDR brachytherapy
- Protons
- Cryotherapy



# Case Presentation

## ■ SBRT

- 37.5 Gy in five 7.5 Gy fractions over 5 days
- Acute Grade 2 GU and GI toxicities

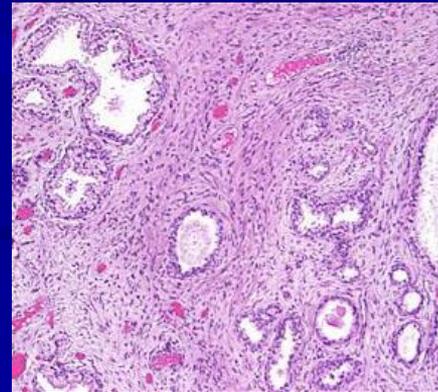
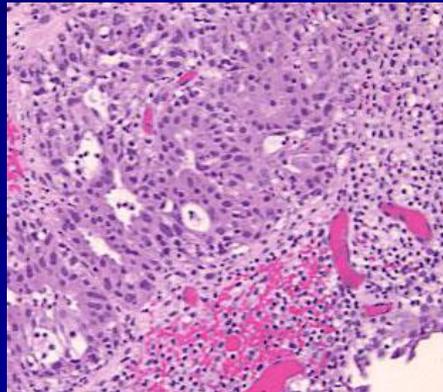
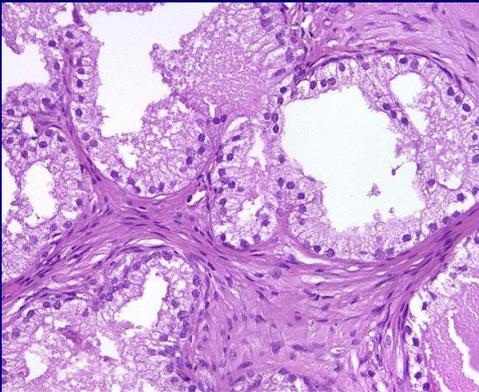


# Case Presentation

- Follow-up = 1 year
- PSA 1.5 ng/ml
- Urinary retention
- PVR = 800 cc
- Cystoscopy:
  - Median lobe hypertrophy
  - Bladder wall thickening
- TURP

# Case Presentation

- Microscopic evaluation of TURP specimen
  - Nuclear and cytoplasmic changes
  - Basal cell hyperplasia and chronic inflammation
  - Glandular atrophy
  - No residual cancer, fibrosis or necrosis

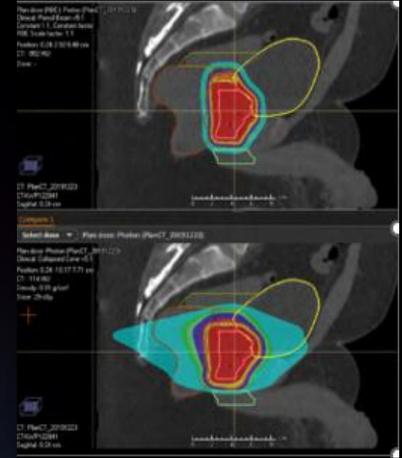


# Case Presentation

- Follow-up = 2.5 year
- PSA 0.3 ng/ml
- DRE = normal
- AUA = 12
- Mild stress incontinence
- SHIM = 19

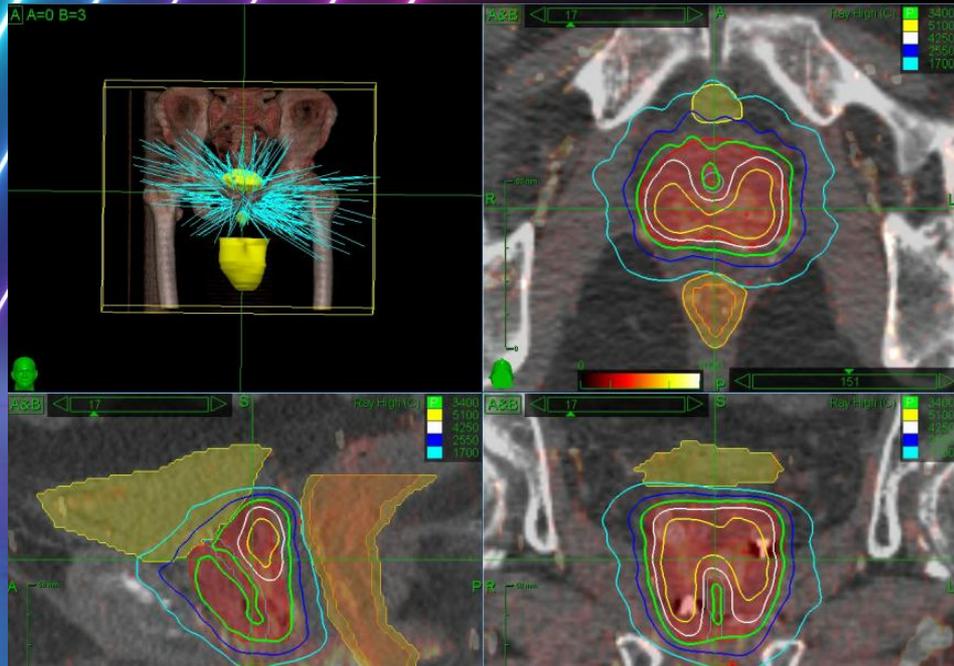
# “George”

- An interesting (challenging) case
  - (Also, a “character” . . . I’m still following him . . .)
- 58yo; presented w stage T1c; PSA 9.8 ng/mL; Gleason 6 - in 2011
- Proton Beam RT – LLUMC – 2011
- PSA nadir 0.36 ng/mL ~ 2013
- PSA Then started rising . . . (inexorably)
  - (George . . . Is not amused . . . at the thought of ADT . . .)
- Local recurrence was biopsy proven in 2017, now Gleason 4+3
- I met him in 2019, by which time his PSA measured 31 ng/mL
  - He had not had any salvage therapy, ADT or otherwise



# “George”

- Proton Beam RT – LLUMC – 2011
- CK SBRT salvage per protocol, 3/29/2019
  - 3,400cGy/5 fx
  - “Virtual HDR” design
    - w SpaceOAR . . .

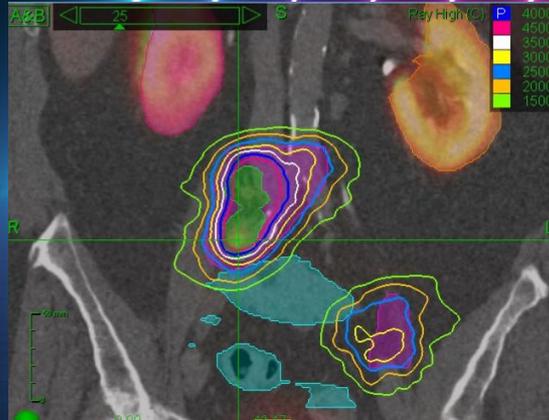


# “George”

- **CK SBRT salvage per protocol in 2019; PSA at salvage – 31.3 ng/mL**
  - **3,400cGy/5 fx**
  - **“Virtual HDR” design; no ADT**
- **Completed 3/2019**
  - **Had Gd 1 urgency, frequency, loose stool, resolved in 1 month**
    - **(i.e. – indistinguishable from primary SBRT)**
  - **By 4/2019, PSA decreased from 31.3 ng/mL → 16 ng/mL**

# “George”

- Rut Roh . .
  - By 10/2019 . . PSA back up from 16 ng/mL (“nadir”) → 19 ng/mL
  - Repeat PSMA PET/CT
    - Now he has (-) prostate, but has 3 (+) newly hypermetabolic pelvic LNs
  - I sent him for an ADT consult . .
    - (George . . Is not amused . . at the thought of ADT . . . Still!)



← 2/14/2020 - CK SBRT round two . . .

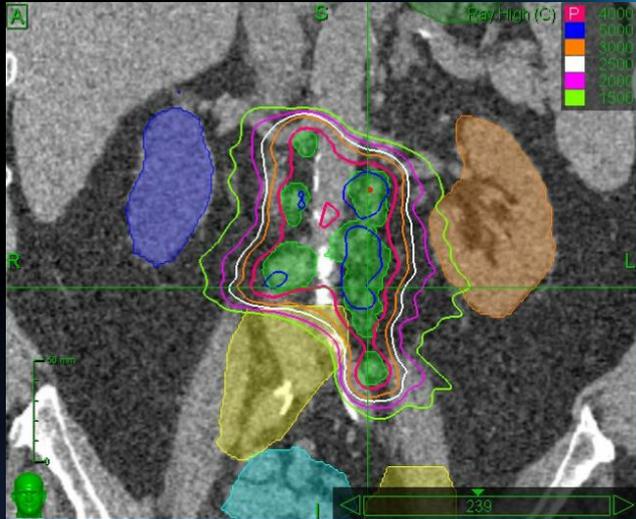
40  
Gy/  
5 fx

# “George”

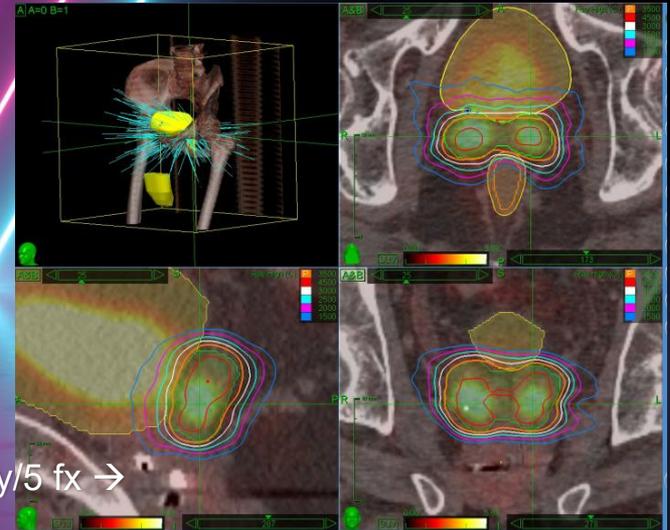
- 9/11/2020 - 19.1 ng/mL → PSA 5.5 ng/mL; back on Flomax
- Rut Roh . .
  - 2/15/2021 . . PSA 5.5 ng/mL → 12.1 ng/mL
  - Repeated PSMA PET/CT
    - “Bilateral (+) SVs and a cluster of 5 retroperitoneal LNs”

# “George”

- “Bilateral (+) SVs and a cluster of 5 retroperitoneal LNs”
  - (I prescribed Orgovyx . . He picked it up . . He took 3 pills . . . )



5/14/2021 - CK SBRT round 4 . . .



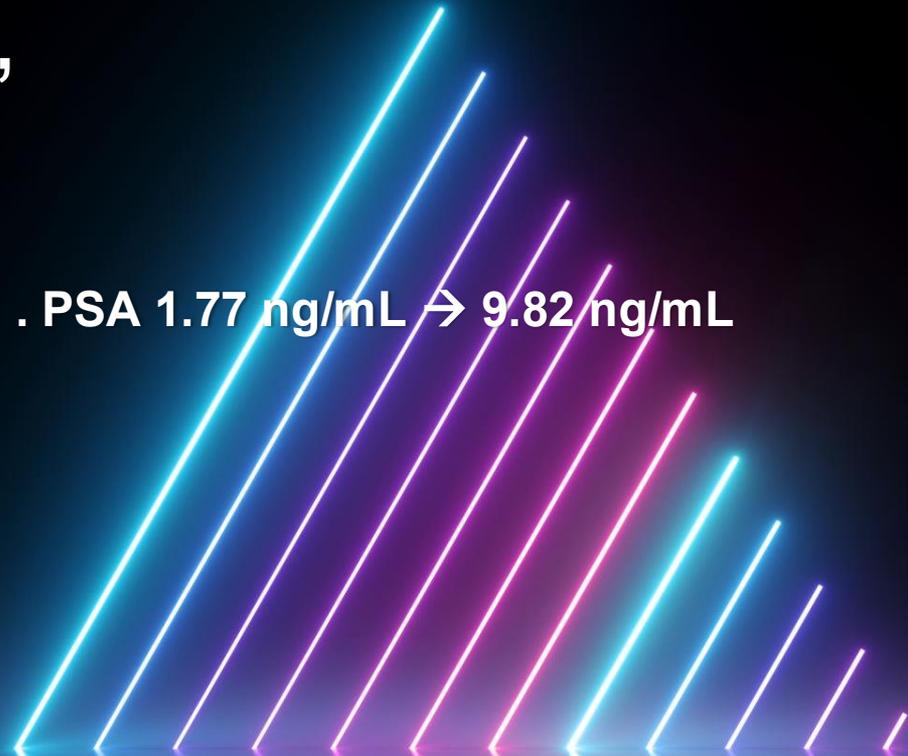
# “George”

- 5/14/2021 - CK SBRT rounds 3 and 4 (Still no ADT) . . .
- 10/19/2021 - PSA 12.1 ng/mL → 1.77 ng/mL!

(Recall he started at “PSA of 31” in 2019)

# “George”

- Rut Roh . .
  - 4/18/2023 . . PSA 1.77 ng/mL → 9.82 ng/mL

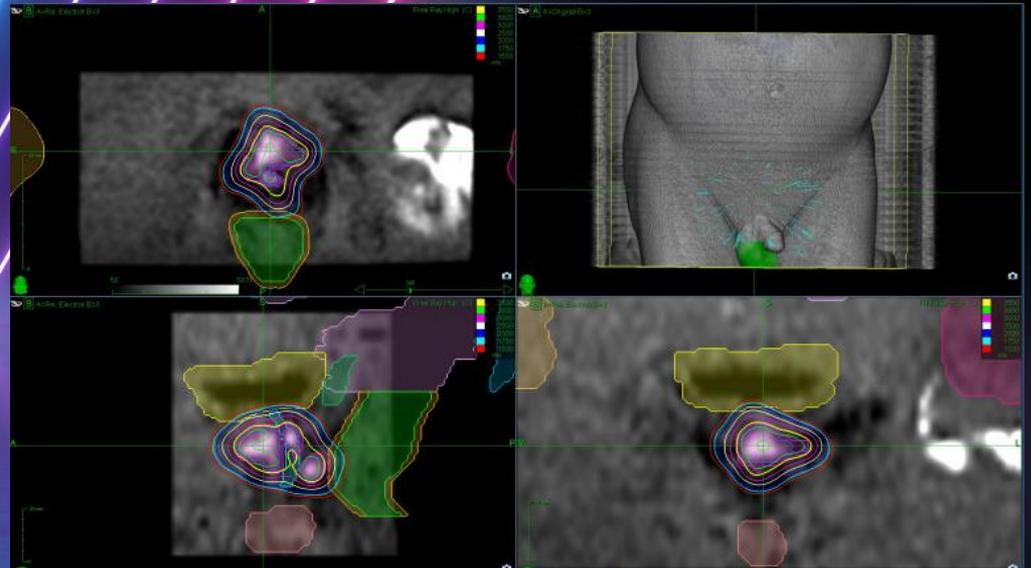


# “George”

- Rut Roh . . 4/18/2023 . . PSA 1.77 ng/mL → 9.82 ng/mL
  - Repeated PSMA PET/CT; Repeated prostate MRI (Both studies (+)). .
    - Central recurrence, periurethral
      - (This time he got multiple additional opinions . . )
    - Again, he chose CyberKnife SBRT - FOCAL

# “George”

- Again, he chose CyberKnife SBRT – FOCAL –
  - 35 Gy/5 fx 6/13/2023
  - PTV = RSI MRI (+) (+) 2 mm
- (If anybody’s counting, that’s 3 RT rounds to the prostate and 1 RT (or 2) round(s) to the SVs . . )
- Still has waxing/waning Grade 1 GU toxicity w worsened urgency; Still zero rectal issues . . . SHIM score still 17/25!



# “George”

- PSA 9.82 ng/mL(2023) → 7.07 ng/mL (1/8/2024)
- Rut Roh . . .
  - PSA 7.07 ng/mL (1/8/2024) → 12.83 ng/mL (8/30/2024)
- Repeated PSMA PET/CT
  - (+) L SV; (+) L ant 5<sup>th</sup> rib

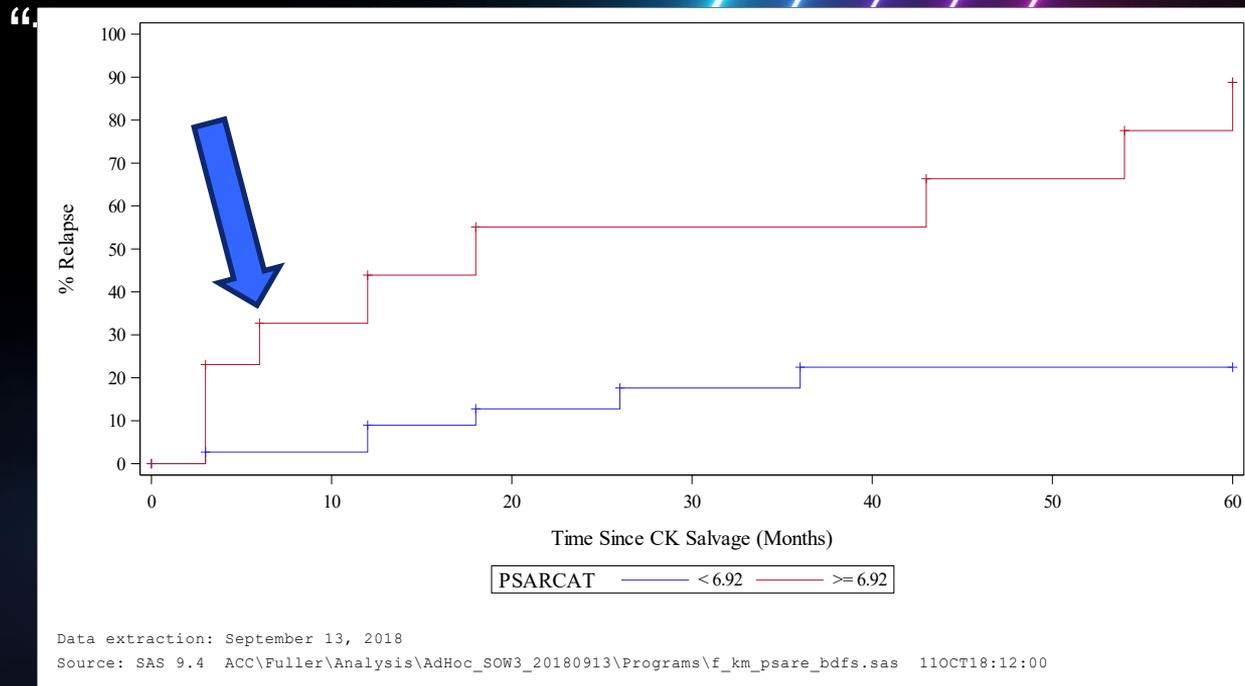
# “George”

- **12/2024: Back to his home (FL) for L 5<sup>th</sup> rib RT (basic 3DCRT, I believe)**
- **2025: Subsequent CK SRS T6 and T10 metastases (FL)**
- **As of 1/22/2026:**
  - **He still declines ADT . . . but is at least now “thinking about it” . . .**
  - **Although he now has 3 bone lesions, he remains asymptomatic (all 3 have been treated)**
  - **His PSA level is still responding to MDT, though ominously, his updated PSA trend is “higher highs and higher lows” after each round . . .**

# “George”

## Conclusions:

- He is a SBRT prostate salvage protocol



# “George”

## Diagnostic Studies History (Donald B. Fuller, MD; 1/22/2026 9:01 AM)

**Labs - Testosterone** 4/19/2019 - 507 ng/dL

6/13/2019 - 456 ng/dL

9/6/2019 - 505 ng/dL

12/2/2019 - 491 ng/dL

9/11/2020 - 494 ng/dL

2/15/2021 - 491 ng/dL

10/5/2021 - 554 ng/dL

3/25/2022 - 494 ng/dL

9/14/2022 - 604 ng/dL

11/23/2022 - 536 ng/dL

4/28/2023 - 444 ng/dL

9/11/2023 - 396 ng/dL

2/1/2024 - 556 ng/dL

3/20/2024 - 571 ng/dL

1/22/2026 - "My new Dr. doesn't check my T levels" . . STILL no ADT

# “George”

## Conclusions:

- He has had a total of 3 separate SBRT courses to his prostate/SV complex . . . AFTER full course proton beam prostate RT;
- D max (cumulative) central prostate . . . “14,000 cGy” (~7,000 cGy of that at  $\geq 600$  cGy/fx . . . )
- His pelvic toxicity as of 1/22/2026 (I called him directly to update, before this talk . . . )
  - Grade 1 GU (urgency, w occasional incontinence, but still does not wear a pad); grade 0 GI; Still sexually active
    - (His last recorded SHIM score was 17/25; w Cialis . . . )
- I submit that the concept of “organ tolerance” in the era of “voxel by voxel sniper” . . . is completely unknown!

# “George”

So . . .

2011 – Proton Beam RT prostate

2017 – Bx proven RELAPSE

2019 – CK SBRT “whole prostate” (Pre-Salvage PSA = 31 ng/mL)

2020 – CK SBRT pelvic LNs x 3

2021 – CK SBRT RP LNs x 6

2021 – CK SBRT bilat SVs

2023 – CK SBRT focal recurrent central prostate

2025 – 3DCRT L 5<sup>th</sup> rib, CK SRS T6 T10 (Back in his home state)\_

2026 – Current PSA is mid-20s, and . . .

“George”

He still has that “PSMA (+)” L SV” . . .



“George”

Thank you . . .

