

# PC 1

- 75 year old retired dentist in excellent health
- 3 years prior presented with screening PSA of 9.2
- TRUS bx high volume Gleason 4+5, Grade Group 5
- Germ line testing, no DDR mutations present
- Flucyclovine PET/CT
  - radiotracer uptake in bilateral prostate as well as right proximal external iliac (0.5 cm), right pelvic paracaval (0.7 cm) and right retrocrural (0.7 cm) lymph nodes
- ADT with abiraterone/prednisone intensification
- Nadir PSA undetectable

# PC 1

- Over the past 6 months, PSA 0.24, 0.65
- Asymptomatic, ECOG PS 0

# PC 1

## You recommend

- A. Repeat PSA in 3 months
- B. Enzalutamide
- C. PSMA PET/CT
- D. CT abd/pelvis bone scan
- E. Decadron switch
- F. Something else

# PC 1

- Decadron switch PSA 1.55 and 3.65
  - Abiraterone and decadron discontinued
- Asymptomatic, ECOG PS 0
- CT abd/pelvis and bone scan
  - NED

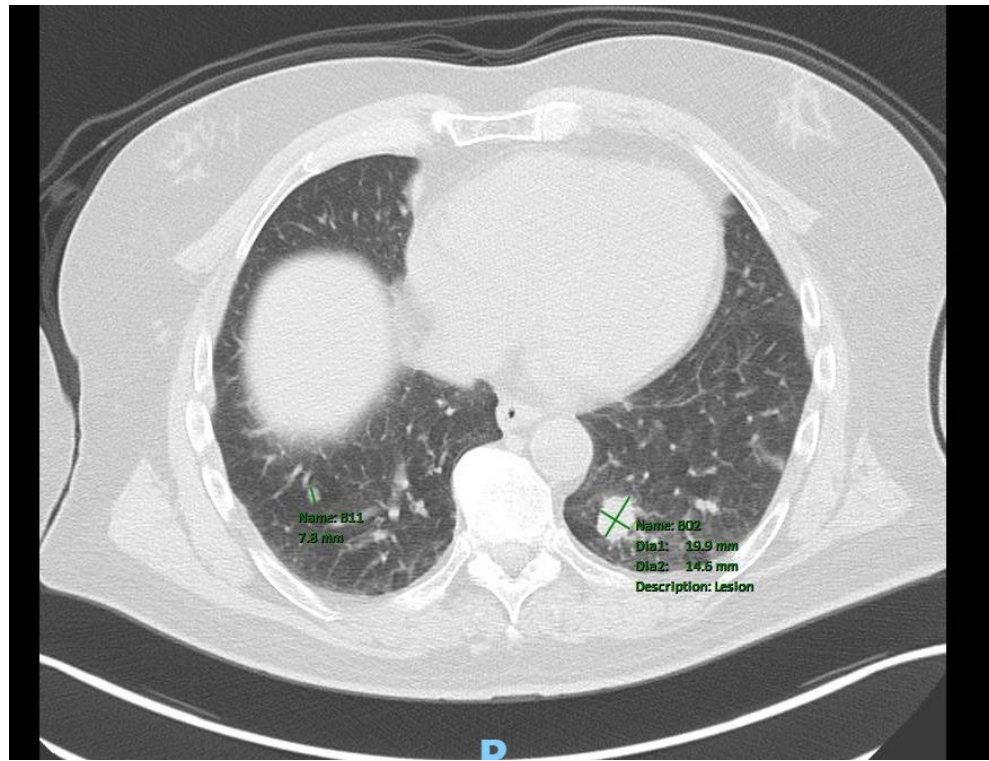
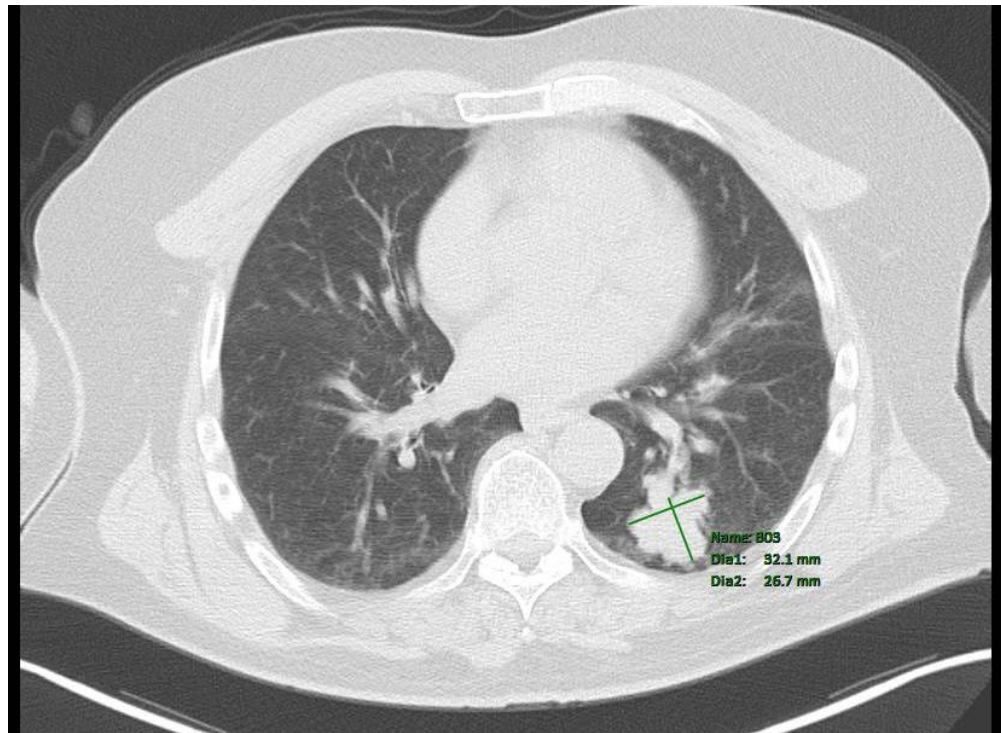
# PC 1

You recommend

- A. Repeat PSA in 3 months
- B. Enzalutamide
- C. PSMA PET/CT
- D. Sipuleucel-T
- E. Something else

# PC 2

- 65 year old who presents for your opinion
- 12/18 radical prostatectomy at another shop, Gleason 4+5
- Post op persistent PSA, followed then imaged with CT scan, pelvic node bx +
- Treated with docetaxel, followed by enzalutamide
- CT imaging demonstrates multiple lung nodules, bx read at local institution as small cell carcinoma ( PSA undetectable)
- CT abd/pelvis NED
- Patient is entirely asymptomatic, ECOG PS 0, advised to undergo emergent chemotherapy with cisplatin/etoposide

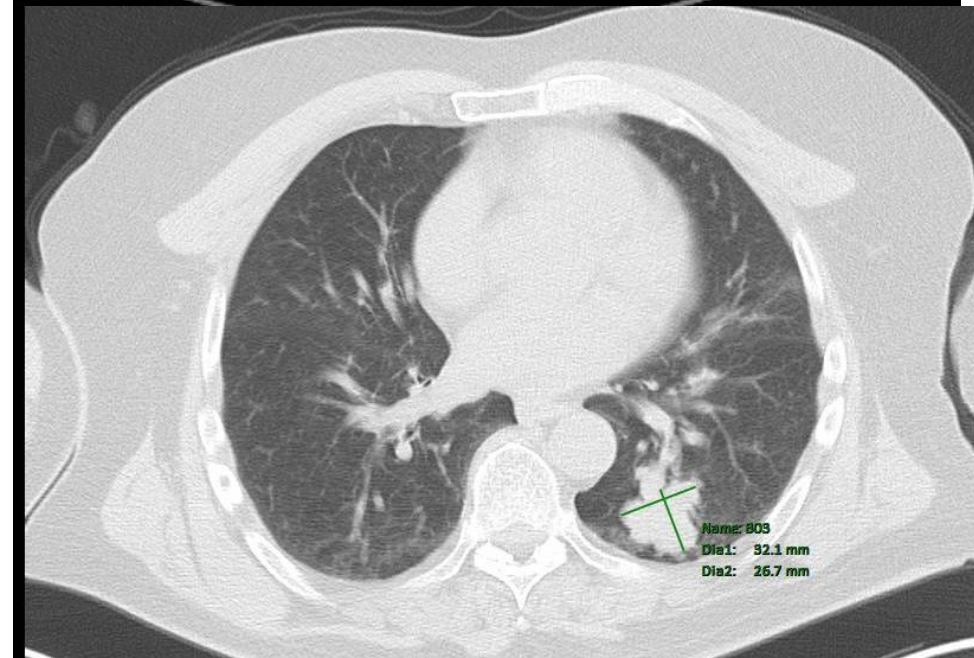
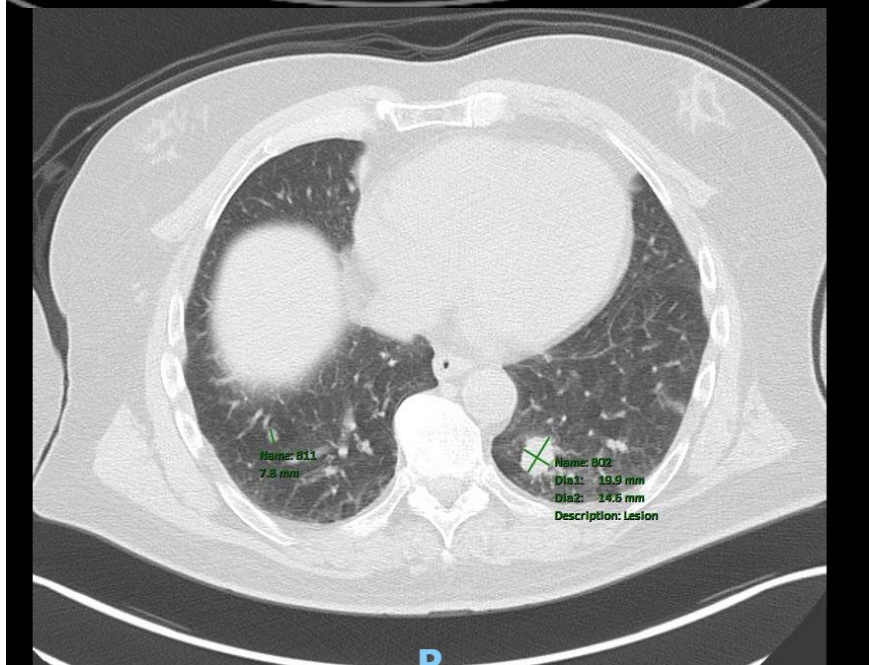
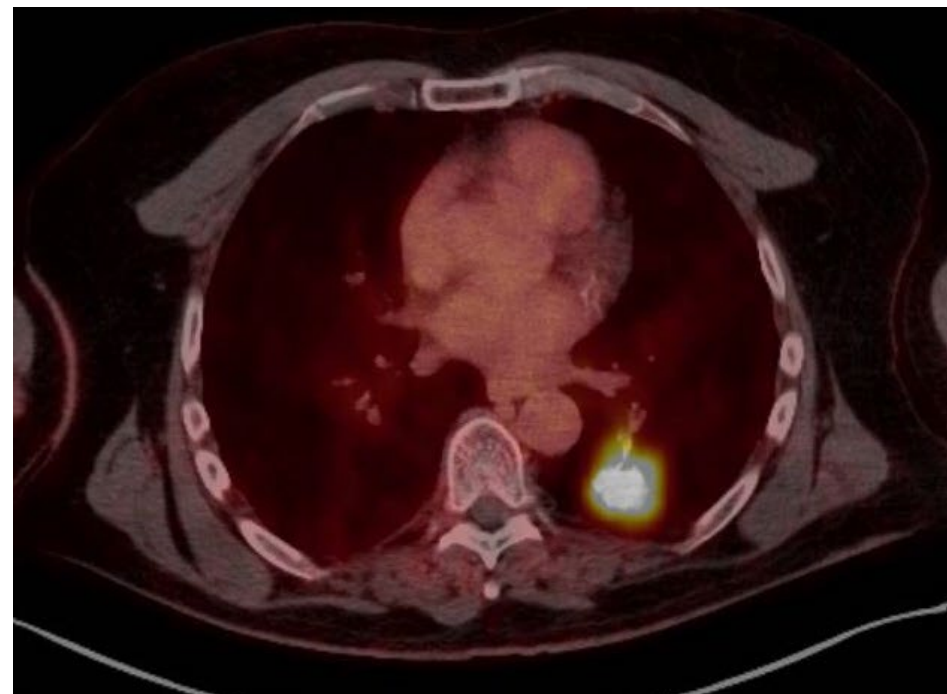
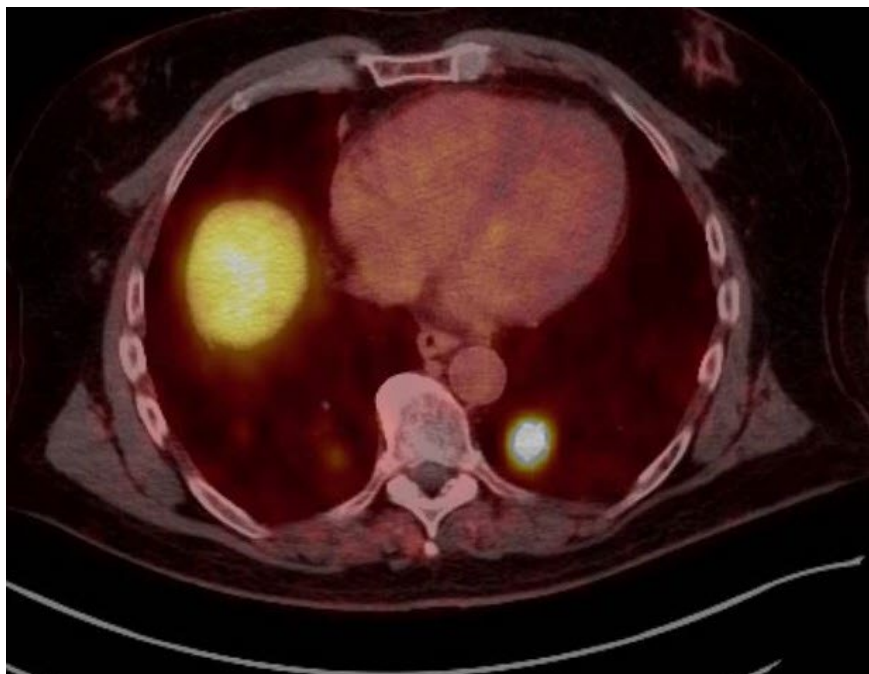


# PC 2

## You Recommend

- A. Expert pathology review
- B. Platinum/etoposide, d/c enzalutamide
- C. Continue enzalutamide add docetaxel/carboplatin
- D. PSMA PET/CT
- E. Something entirely different





# PC 2

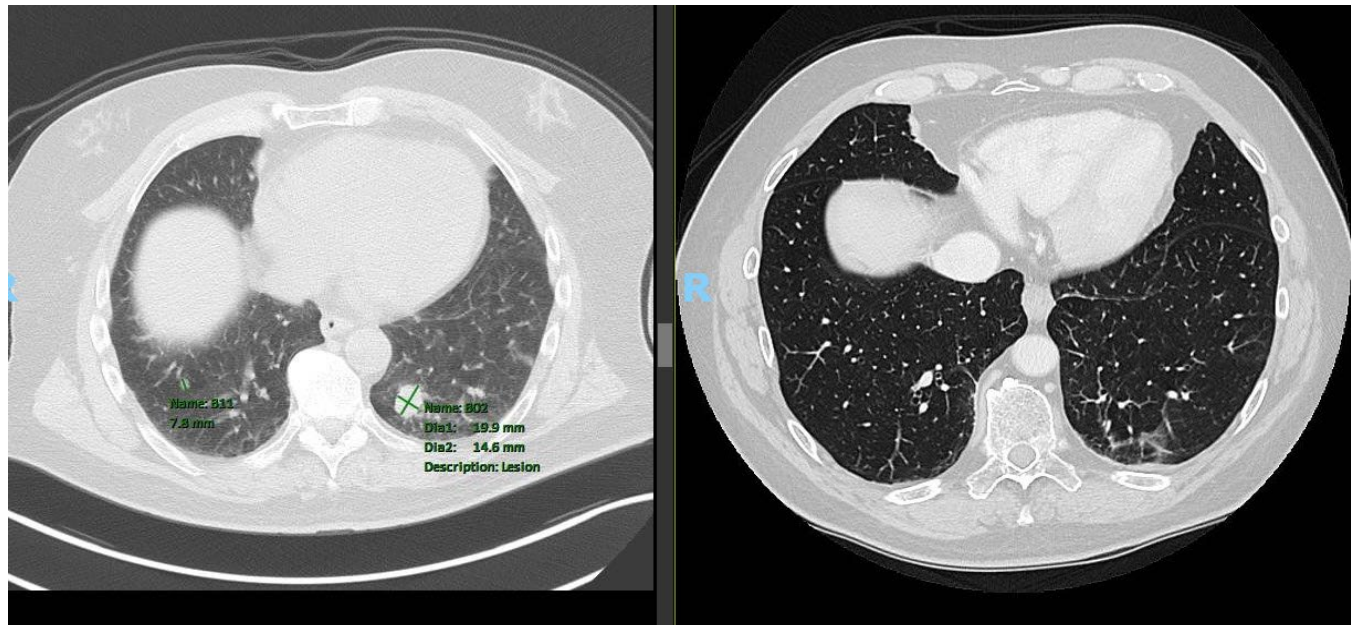
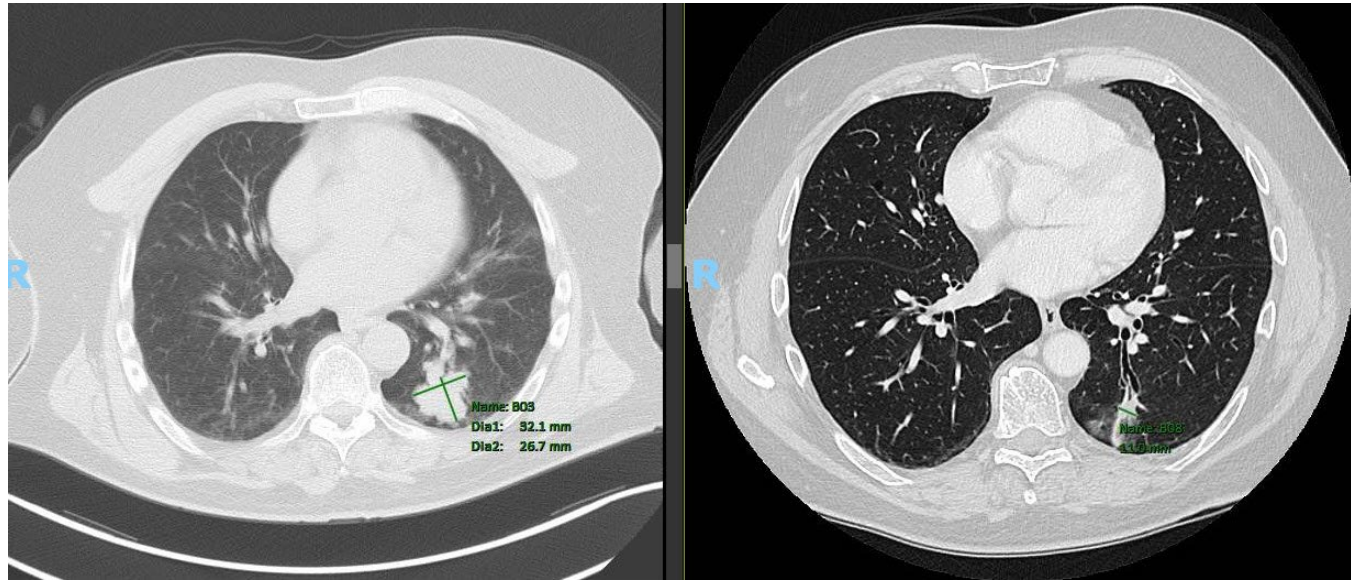
- Path reviewed
  - Prostatectomy specimen Adenocarcinoma with mixed ductal and acinar features Gleason 4+5 Grade Group 5
  - Lung bx: metastatic prostate adenocarcinoma (Negative for TTF-1)

# PC 2

## You Recommend

- A. d/c enzalutamide, start cabazitaxel
- B. Continue enzalutamide, start cabazitaxel
- C. d/c enzalutamide, start lutetium 617
- D. d/c enzalutamide, start docetaxel/carboplatin
- E. SBRT to largest lung nodules, continue enzalutamide
- F. Something entirely different

# PRE and Post 6 cycles of lutetium 617





# PC 3

- 73 year old presents for recommendations
- By his report 2008 Gleason 6 managed with brachytherapy
- Most recent PSA 4.9, he is asymptomatic over the last two years he has undergone
  - MRI of the prostate : evidence of internal radiation seeds ? focal enhancement of right transition zone
  - CT abd/pelvis and bone scan NED
  - Flucyclovine PET/CT 0.7 cm left common iliac node ? positive otherwise NED

# PC 3

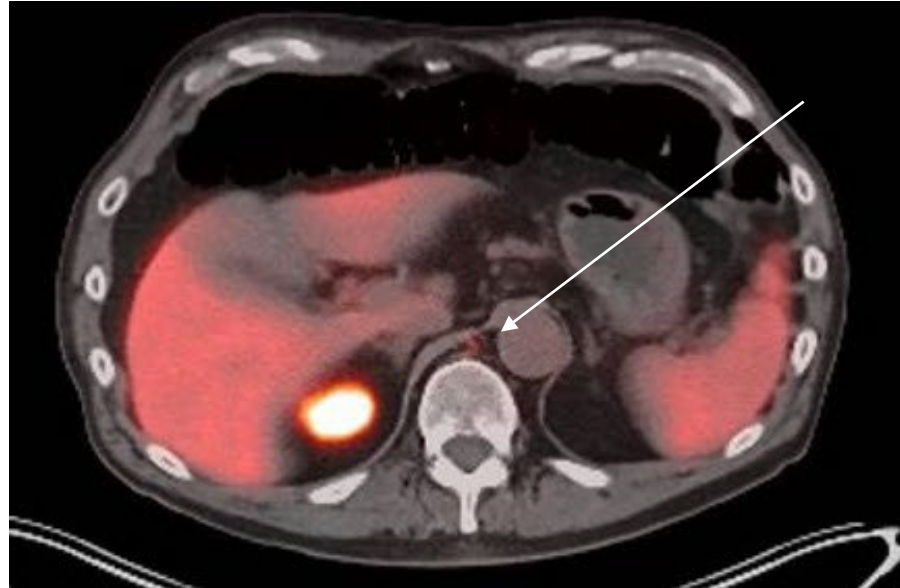
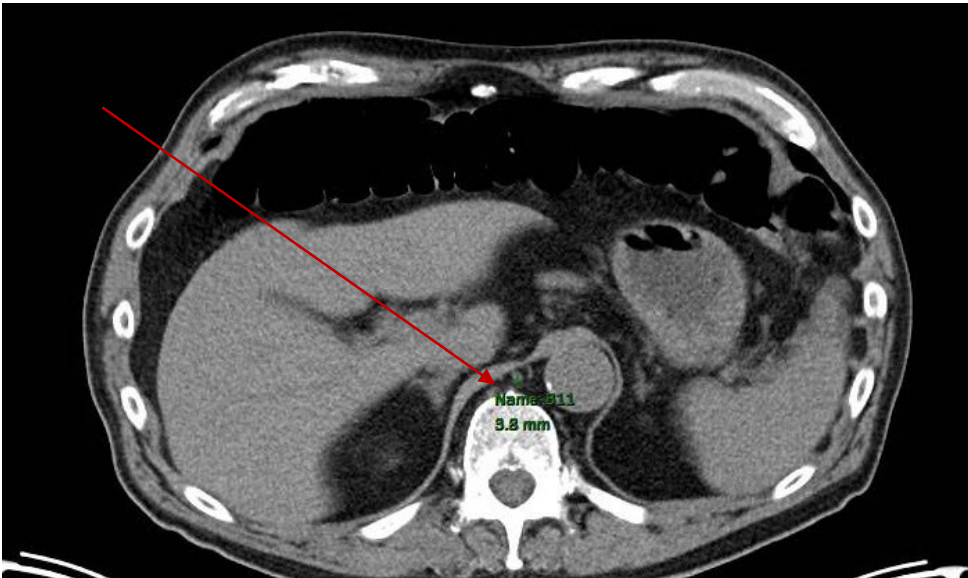
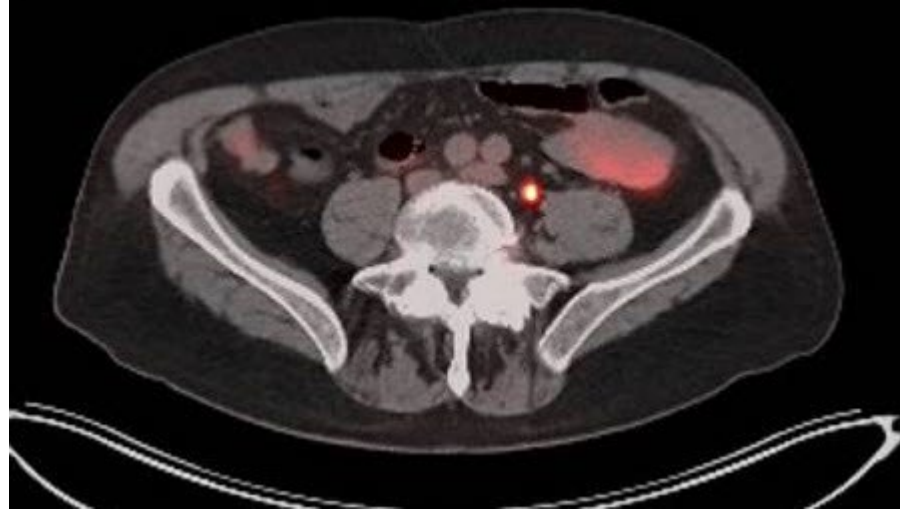
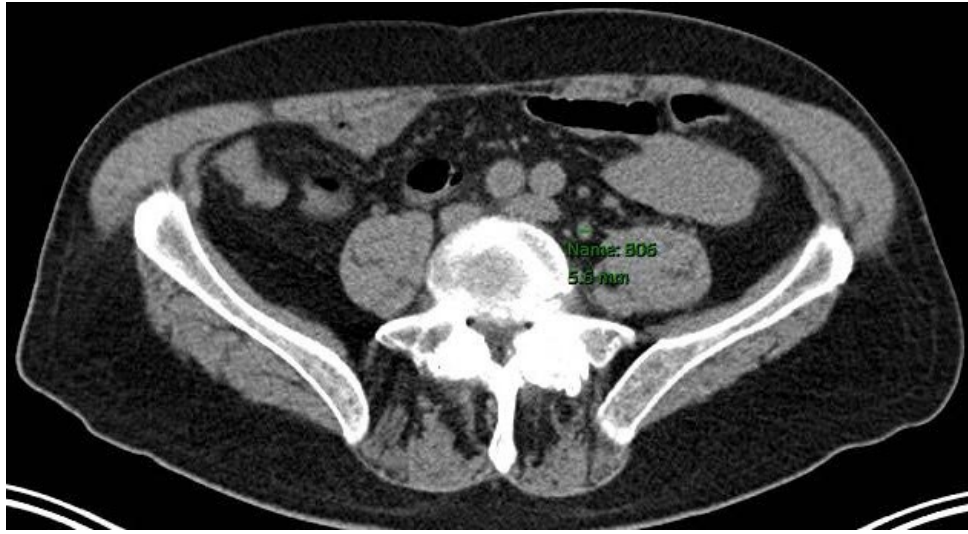
## You Recommend

- A. Expectant management, FU 3 months with PSA
- B. ADT with plans for intermittent therapy
- C. ADT with ARI intensification
- D. SBRT
- E. Something entirely different

# PC 3

- Opts to be followed expectantly
- Over 2 years PSA progression, now 11.2 with a PSA DT of 8 months
- Asymptomatic, ECOG PS 0

## PSMA PET/CT



Multiple small pelvic and retroperitoneal lymph nodes with mild to intermediate PSMA expression, suspicious for metastasis. Retrocrural and left upper para esophageal lymph nodes are also suspicious for metastasis



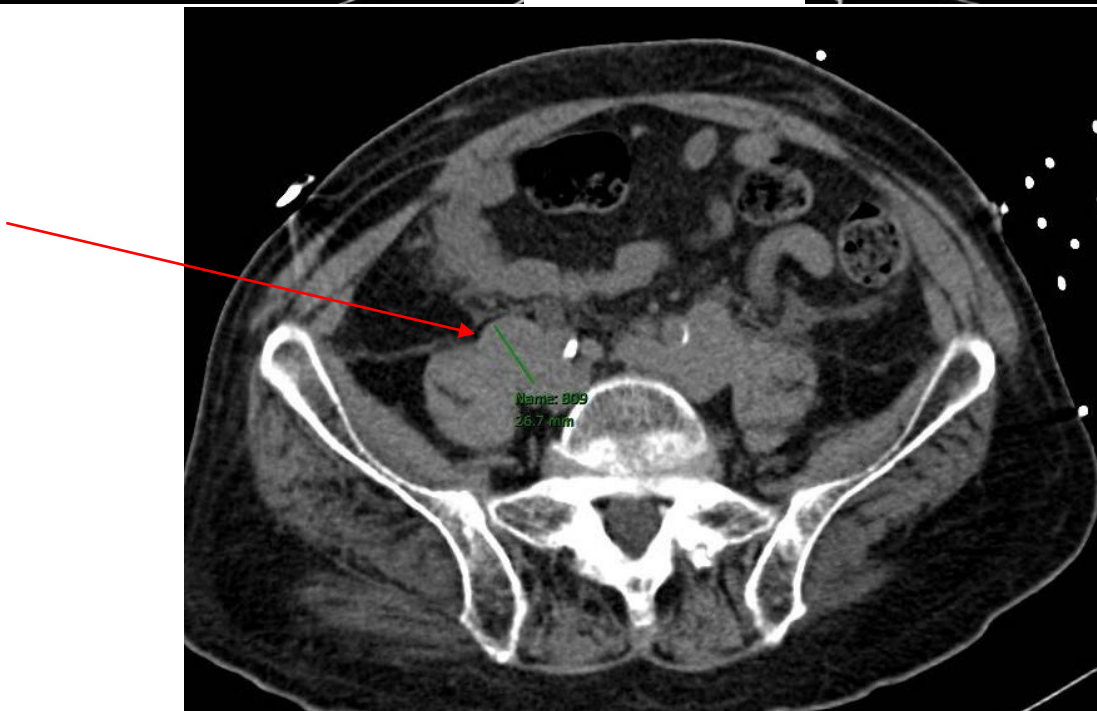
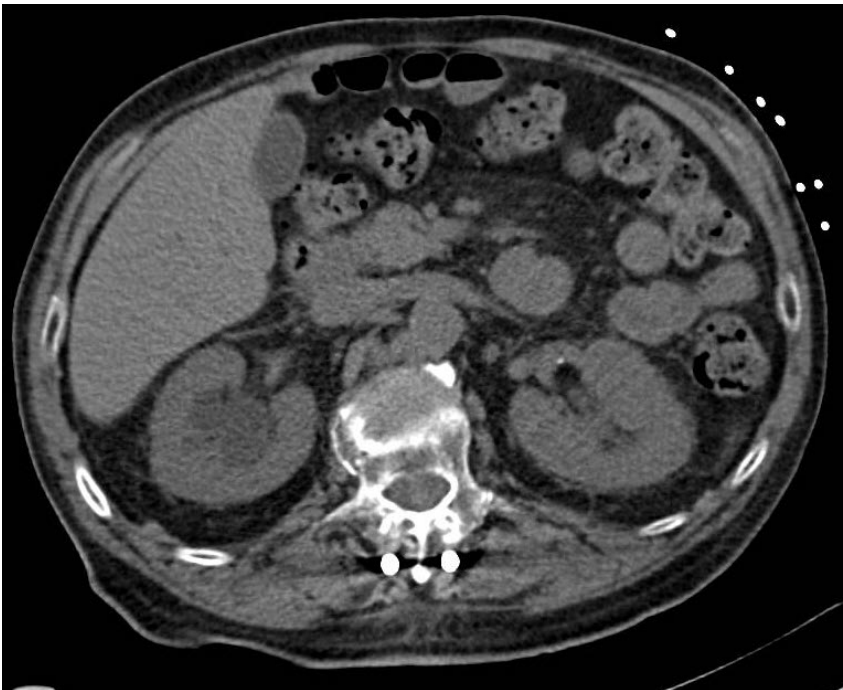
# PC 3

## You Recommend

- A. Expectant management, FU 3 months with PSA
- B. ADT with plans for intermittent therapy
- C. ADT with ARI intensification
- D. SBRT
- E. Something entirely different

# PC 4

- May 2017 presents at age 63 with pain/fatigue/PSA 353/TRUS bx Gleason 9, bone mets on imaging
- Managed with ADT only ( no intensification discussed)
- 5/19 asymptomatic PSA progression, mcrpc
- Sip T completed 11/19
- 6/22 nodal progression on imaging abiraterone/prednisone initiated
- 5/23 clinically well, undetectable PSA
- 7/23 no urine output, admitted in AKI (PSA undetectable)



# PC 4

- LYMPH NODE, LEFT PARA-AORTIC, CT-GUIDED FINE NEEDLE ASPIRATION:
- METASTATIC HIGH-GRADE NEUROENDOCRINE CARCINOMA
- Comment
- The tumor cells are positive for Pankeratin, CK20 (heterogenous), TTF-1 (diffuse), synaptophysin and chromogranin. The tumor cells are negative for CK7, ERG, NKX3.1, PSA and PSAP. INI-1 and BRG-1 are retained in the tumor cells. Overall, the morphology and the immunoprofile support involvement by metastatic high-grade neuroendocrine carcinoma and in this clinical context are compatible with a prostate primary tumor

# PC 4

## You Recommend

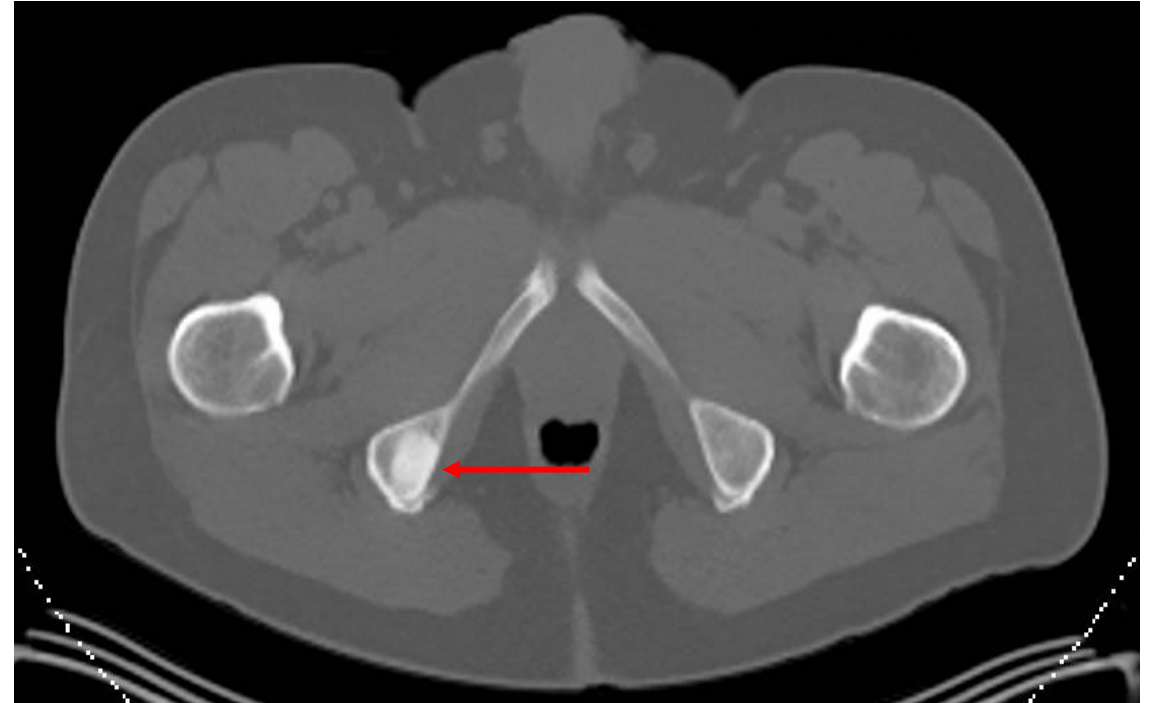
- A. Continue abiraterone/pred add platinum/etoposide
- B. Platinum/etoposide, d/c abiraterone
- C. Continue abiraterone/prednisone add docetaxel/carboplatin
- D. Something else

# PC 5

- 65 year old healthy gentleman, ECOG PS 0
- PSA increased from 2.95 to 4.82 in 18 months
- MRI pelvis with/without contrast:
  - PIRADS 5 lesion in right mid gland transitional zone up to 2.7 cm in size with no ECE
  - Peripherally enhancing osseous lesion in right ischial tuberosity
- TRUS with biopsies:
  - Prostate adenocarcinoma, T2
  - Gleason 4+5 in 4/18 cores with PNI (including targeted lesion)
  - 4+4 in 13/18 cores

## PC 5

- F18 PSMA PET/CT:
  - Focal uptake in right posterior lateral aspect of prostate with low PSMA expression
  - Sclerotic lesion of right ischial tuberosity with low PSMA expression



# PC 5

## You Recommend

- A. Radical Prostatectomy + MDT
- B. Definitive radiation to prostate and MDT to ischial met + long course ADT +/- abiraterone
- C. ADT + ARSI +/- docetaxel
- D. ADT + ARSI +/- docetaxel + palliative radiation to prostate
- E. Other



## PC 5

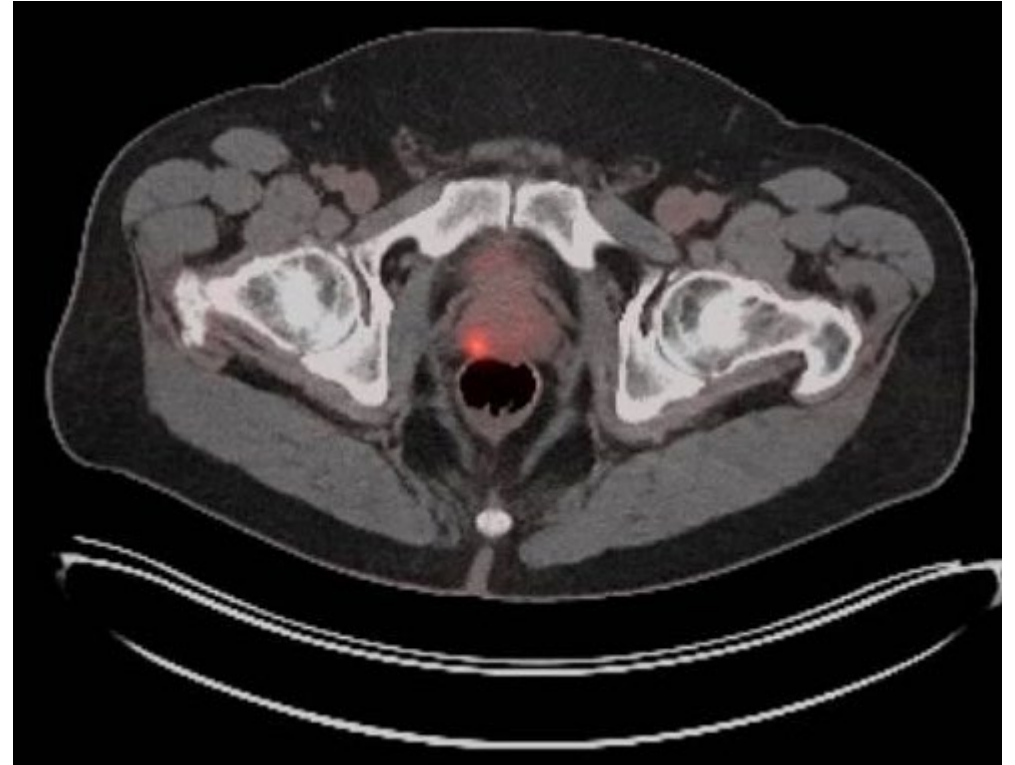
- Patient initiated on ADT and then moved out of state where he established care at another tertiary care center and was planned for definitive radiation to prostate and MDT to ischial met plus long course ADT and abiraterone/prednisone

# PC 5a

- 68 year old healthy gentleman, ECOG PS 0
- PSA 4.25 during screening
- TRUS with biopsies:
  - Prostate adenocarcinoma, T2
  - Gleason 4+4 in 1/12 cores, 4+3 in 7/12 cores, 3+4 in 1/12 cores
- MRI pelvis:
  - 1.2cm PIRADS 4 lesion along right base to mid gland peripheral zone with contact with the capsule which cannot exclude the possibility of microscopic extraprostatic extension
  - 0.8 cm PIRADS 3 lesion along the left base peripheral zone anterior sector
  - No adenopathy or SVI

## PC 5a

- F18 PSMA PET/CT:
  - Focal radiotracer uptake within the right posterolateral prostate with intermediate PSMA expression consistent with known primary prostate malignancy
  - No lymphadenopathy or metastases

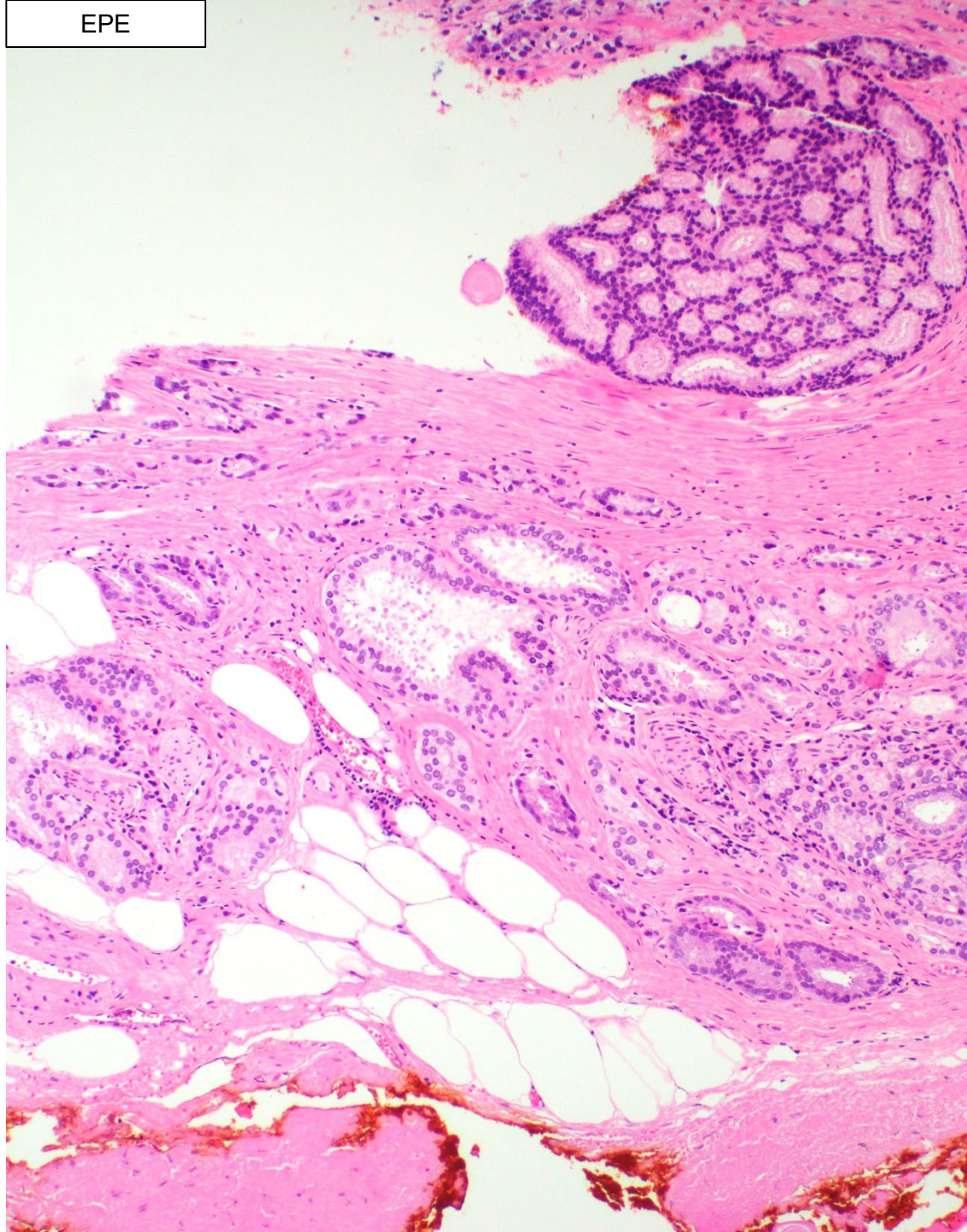


# PC 5a

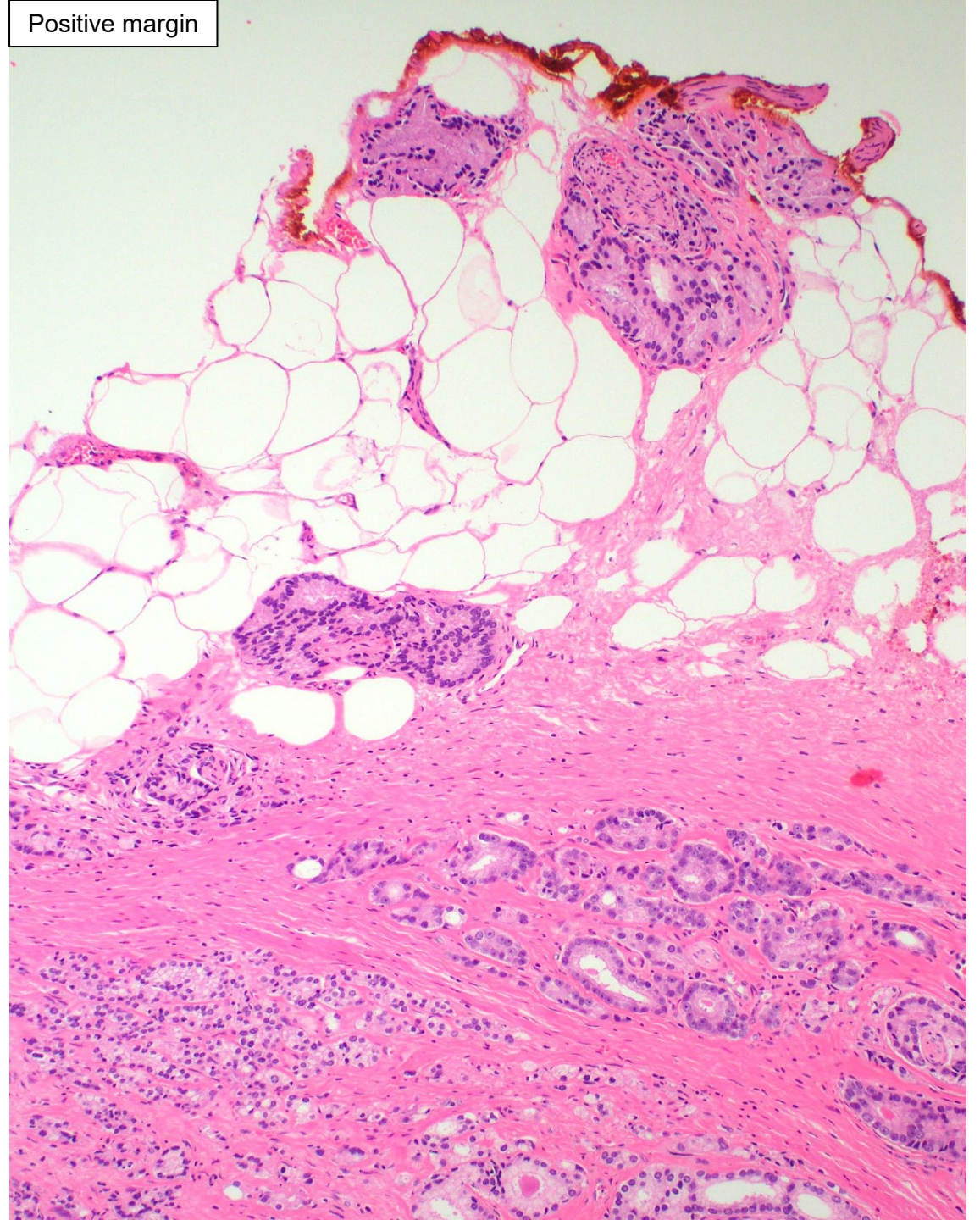
- Patient undergoes anterior robotically assisted laparoscopic radical prostatectomy with bilateral nerve sparing and pelvic lymph node dissection
  - Path reads **prostate adenocarcinoma, Gleason 4+3 with cribriform features, 0/10 LNs, pT3a, unifocal positive base margin**



EPE



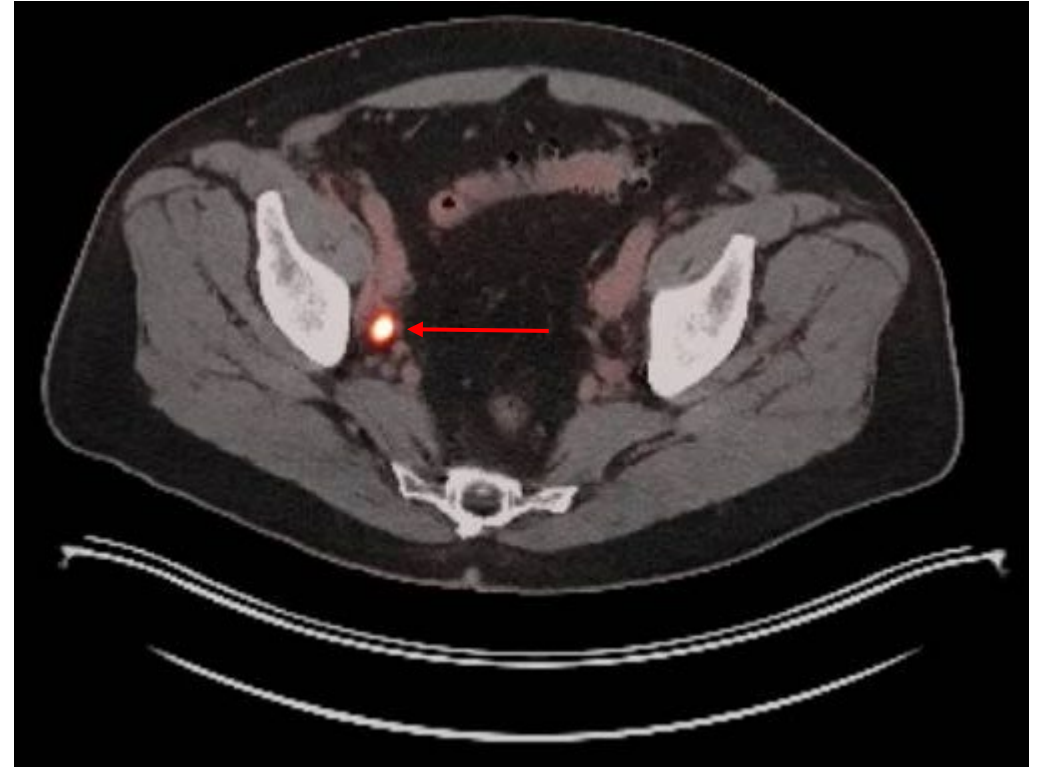
Positive margin





## PC 5a

- Post-op PSA nadir 0.02 (1 month post-op)
- PSA increases to 0.28 (8 months post-op)
- Repeat PSMA PET/CT:
  - New right internal iliac lymph node measuring 1.4 cm



# PC 5a

## You Recommend

- A. SBRT to iliac lymph node +/- ADT +/- ARSI
- B. Radiation to prostate fossa and pelvic lymph nodes with boost to iliac lymph node plus 6 months ADT
- C. Choice B plus 2 years of ADT
- D. Choice B plus 3 years of ADT and 2 years abiraterone/prednisone
- E. ADT plus ARSI
- F. Other

## PC 5a

- Patient initiated radiation therapy with ADT plus abiraterone for intended 2 year course

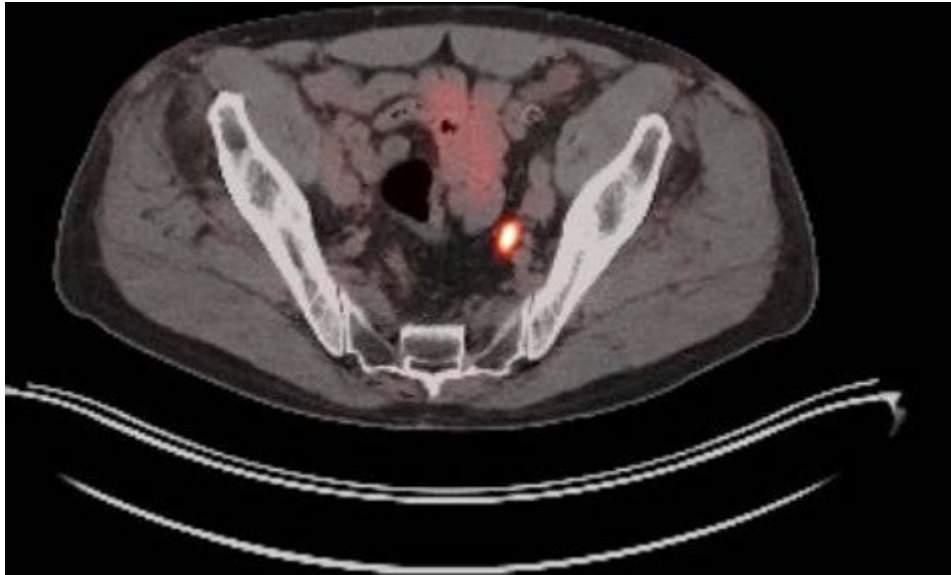


# PC 6

- 68 year old healthy gentleman, ECOG PS 0, presents with a PSA of 21.1
- Prostate MRI PIRADs 3 lesion
- TRUS/Bx high volume Gleason 4+5 (Grade Group 5)

# PC 6

## PSMA/PET CT



1. No radiotracer uptake corresponding to the peripheral zone prostate mass, probably on the basis of low PSMA expression.
2. A 1.3 cm internal iliac lymph node with mild radiotracer uptake (SUV max 2.6), suspicious for nodal metastasis.
3. Focal radiotracer uptake in the left posterior 2nd rib and anterolateral sixth rib showing cortical sclerosis, concerning for metastases. Densely sclerotic left anterolateral fifth rib and focally sclerotic left clavicle without significant radiotracer uptake, again these findings can be on the basis of low PSMA expression

# PC 6

## You Recommend

- A. Radical prostatectomy/node dissection
- B. EBRT/2-3 years ADT
- C. EBRT/2-3 years ADT with abiraterone/prednisone
- D. EBRT/2-3 years ADT with docetaxel/darolutamide
- E. Something else

# PC 7

- 59 y/o M w/history of Gleason 3+3=6 prostate cancer treated with HDR-brachytherapy
- 18 months after brachytherapy, PSA 3.47
- He gets a PSMA PET scan which shows:



## PSMA PET scan

- Uptake in prostate bed (L prostate + seminal vesicle) and lateral L 9th rib

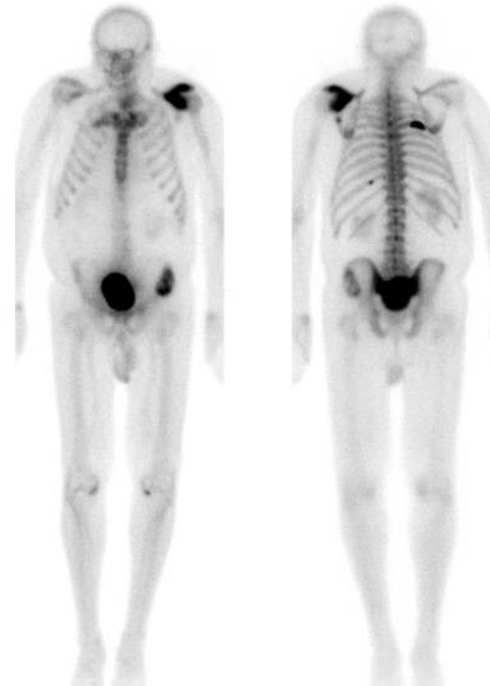
# PC 7

## You recommend

- A. Biopsy of the L rib lesion
- B. ADT + EBRT to the prostate (with curative intent)
- C. ADT + EBRT to the prostate and rib (for palliative intent)
- D. ADT monotherapy
- E. ADT + secondary hormonal agent
- F. Something else

# PC 8

- 68 year old male, presents with progressive hip pain
  - PSA 806

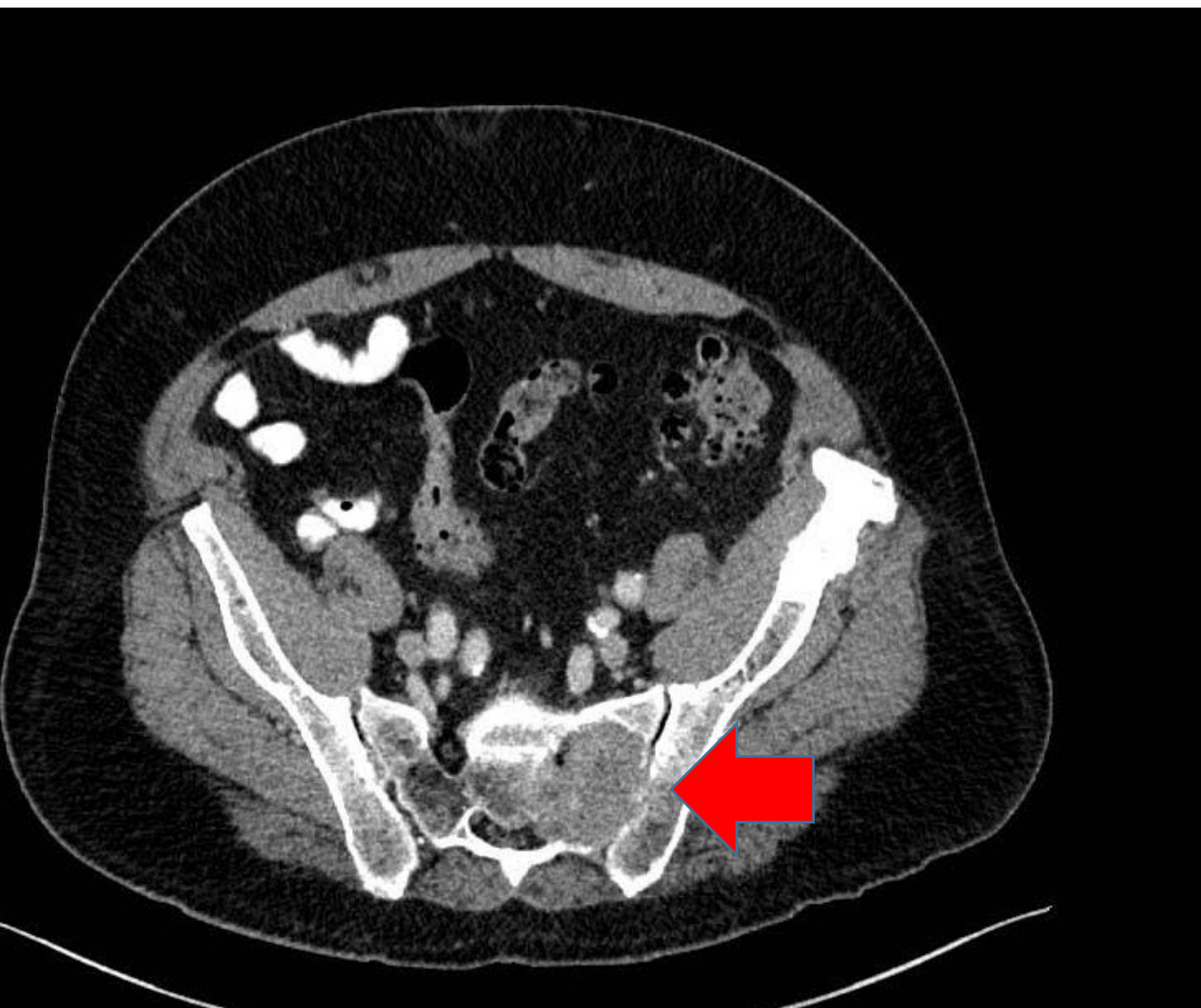


# PC 8

- EBRT to hip lesion
- ADT/docetaxel intensification
- 2 years later rising PSA, no symptoms, new bone lesions
- Enzalutamide, 3 months later PSA progression, d/c
- CT chest/abd/pelvis bone only progression
- Radium-223 x 3, interval CT prior to C4 ( PSA progression)
- Mild new shoulder pain, ECOG 1 (GL DDR neg)



# PC 8



Current imaging



6 months prior

# PC 8

## You recommend

- A. PSMA PET/CT to assess for Lu 617 therapy
- B. Cabazitaxel
- C. Bx for NGS
- D. EBRT to pelvis, manage expectantly
- E. Abiraterone/predisone
- F. Something else

# PC 9

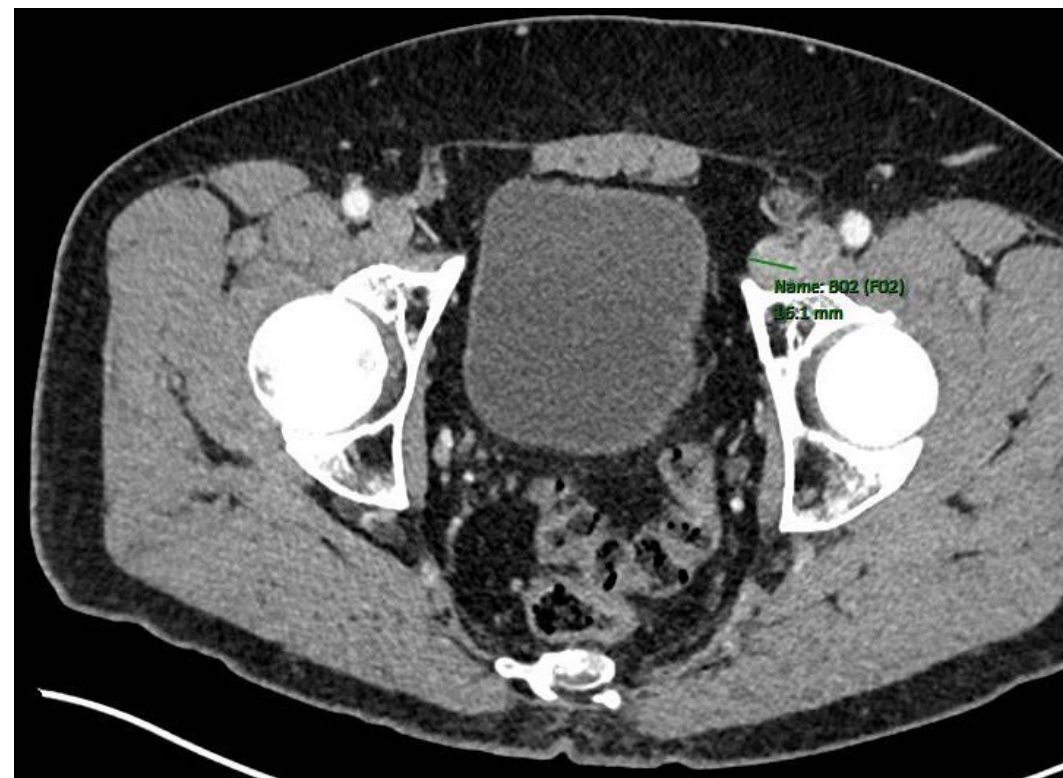
- A 73 year old gent presents for a second opinion, minimal health issues, active ECOG 0, some minor LUTS
- 10 years ago, PSA 30, Bx Gleason 4+4
- EBRT 18 months + ADT
- 2 years later PSA 3.9, normal testosterone
- Axumin PET/CT
  - uptake in central prostate and 12 mm questionable left inguinal node
  - TRUS/Bx NED
- 6 months later Prostate MRI no specific findings
  - Prostate and SV bx NED

# PC 9

- 2.0 years ago PSA now 8.8
- PSMA PET/CT
  - central prostate apex binding, left inguinal lymph node with pyl binding
- Over the next 6 months PSA 10.89 and 12.6
- 8 months ago PSMA PET/CT
  - Interval progression of disease with increase in size of previously noted radiotracer avid left inguinal lymph node with four new radiotracer avid left inguinal lymph nodes and two new left external iliac nodes which are highly radiotracer avid
- Patient reports discussion regarding ADT but opts for surveillance
- PSA now 38.5, asymptomatic here for your wisdom

# PC 9

- You advise imaging with bone scan /CT
- Bone scan NED



# PC 9

## You recommend

- A. ADT
- B. ADT with intensification
- C. SRS to nodes
- D. Continue surveillance
- E. Enzalutamide
- F. Something else

# PC 10

- A 67 year old gentleman who presented 4 years ago with a PSA of 55, TRUS Bx Gleason 4+4 (Grade Group 4) found to have extensive pelvic and RP adenopathy, with negative bone scan
- Received ADT monotherapy, nadir PSA undetectable
- Most recent PSA now 4.3, testosterone 22 ng/dL
- He has mild fatigue, has experienced about 20 lb weight gain over past several years
- ECOG PS 1, hgb 11.5, normal chemistries



# PC 10

- You recommend repeat imaging
  - Bone scan NED
  - CT abd/pelvis some increase/some decrease in nodal sites compared to old CT scan
- Germ line testing reveals BRCA 2 mutation

# PC 10

## You recommend

- A. A second generation ARI (enza/daro/abi/apa)
- B. Olaparib
- C. FDA approved PARP/ARI combination
- D. Docetaxel
- E. Something else

# PC 11

- A 67 year old gentleman who presented 3 years ago with a PSA of 55, TRUS Bx Gleason 4+4 (Grade Group 4) found to have extensive pelvic and RP adenopathy, with negative bone scan
- Received ADT with enzalutamide intensification, nadir PSA undetectable
- Most recent PSA now 4.3, testosterone 22 ng/dL
- He has mild fatigue, has experienced about 20 lb weight gain over past several years
- ECOG PS 1, hgb 11.5, normal chemistries

# PC 12

- You recommend repeat imaging
  - Bone scan NED
  - CT abd/pelvis some increase/some decrease in nodal sites compared to old CT scan
- Germ line testing reveals ATM mutation

# PC 12

## You recommend

- A. abiraterone
- B. Olaparib
- C. FDA approved PARP/ARI combination
- D. Docetaxel
- E. Sipueluecel-T
- F. Lutetium 617 ( if FDA approved in this setting)
- G. Something else