Mesorectal lymph node metastasis in prostate cancer

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Clinical history

- 67 y.o.-old male with cT3a Prostate cancer and suspected EPE on DRE
- Rising PSA – 13.1ng/ml
- Prior negative biopsy 2.5 yrs. ago
- Referred for MRI of prostate prior to biopsy
Findings
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• MRI showed a dominant lesion in left PZ at the level of apex that was dark on T2W and restricted diffusion on DWI/ADC; lesion met PIRADS 5 criteria. EPE was suspected on left side at the same level.
• No enlarged obturator or Iliac lymph nodes
• Round left mesorectal lymph node (7mm).
• Biopsy showed Gleason 4+4 disease.
• Underwent radical prostatectomy.
• On pathology, Gleason score was upgraded to 4+5 and showed EPE and bilateral SV involvement. One 9 mm left external iliac node was positive with 1 mm focus.
• PSA after surgery was 2.7ng/mL and remained elevated at recheck at 2.5 ng/ml
• Imaging - PET CT and prostate MRI
Prostatectomy

ADT

PETCT & MRI

MRI

PSA (Trend All)
Findings

Fluciclovine activity (SUV 5.21) in the left mesorectal lymph node.
Prostate adenocarcinoma, may to spread to various pelvic lymphatic chains:

- lateral route that drain to the medial chain of the external iliac nodal group.
- Internal iliac (hypogastric) route, which drains lymph to nodes located at the junction between the internal and external iliac vessels.
- chains of the anterior pelvic route (anterior wall of the bladder, to the internal iliac nodes).
- Presacral route, which includes the lymphatic plexus anterior to the sacrum and coccyx and extending upward to the common iliac nodes; ultimately, the paraaortic lymph nodes
- Rarely, mesorectal lymph nodes may be involved.
• Few studies have found mesorectal lymph node metastasis—~6% of removed lymph nodes.

• Noval PET radiotracers are promising and may improve nodal staging in high risk prostate cancer before primary treatment or recurrent setting.


