Incidental prostate cancer on Rectal MRI

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History

- 63 yo male
- FOBT+
- Colonoscopy: Sessile polyps in the rectosigmoid
- Transanal excision
- Pathology: 3 cm invasive adenocarcinoma of the rectum, pT2 – invading muscularis propria, Radial/deep margin negative for carcinoma
- Rectal MRI for staging
MR Interpretation

• T2 hypointense transmural fibrosis along the left lateral rectal wall without MR visible residual tumor (White arrow)

• Left sigmoid mesenteric lymph node (Yellow arrow) – N+ staging for rectal cancer
Sag T2
Axial T2WI
Post con: Late art phase
Sag T2  Axial T2WI  Post con: Late art phase
DWI b1000  ADC map
MR Interpretation of Incidental prostate lesion

• A 0.7 cm markedly diffusion restricting and early enhancing focal T2 hypointense lesion : PI-RADS 4
In-bore MR guided transrectal biopsy of the left PZ lesion
Biopsy results

• MR guided in-bore biopsy of the left PZ lesion:
  • Gleason 3+3 (6) prostate cancer involving 3 mm, 2 mm, 0.5 mm and approx. 25% of the submitted tissue
Management

Rectal cancer: Neoadjuvant chemotherapy

Prostate cancer: Radiation therapy

Genetic testing revealed both are sporadic cancers
Discussion and Teaching points

• When interpreting rectal MRI, it is not uncommon to identify abnormalities in other organs including prostate
• Once a lesion in prostate is identified, approach and interpretation of the identified lesion is done using PI-RADS including obtaining calculated high b value DWI images
• It is also not uncommon to find rectal cancers while interpreting prostate MRIs, bladder cancers while interpreting prostate MRI.

Discussion and Teaching points

- When synchronous, rectosigmoid cancer is a greater contributor to mortality
- Men aged ≥45 yrs with localized prostate cancer may be screened for colorectal cancer prior to selecting therapy

Discussion and Teaching points

• Prostate cancer can be associated with colorectal cancer in patients with Lynch syndrome in men with germline variants of DNA mismatch repair genes

• Patient underwent genetic consult and tested negative for mutation in 84 genes associated with rectal cancer and both his cancers were deemed as sporadic

Genetics of Prostate Cancer (PDQ®)–Health Professional Version