Incidental findings on Prostate MRI:

Ectopic insertion of bilateral duplicated collecting system into the prostatic urethra

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Clinical history

• 74 y.o.-old male with cT2a Prostate cancer
• Rising PSA – 5.5 ng/ml
• Prior 16 core TRUS biopsy with Gleason 7 (3+7)
• Referred for MRI of prostate prior to definitive therapy
Findings

Coronal T2W Prostate MRI

Coronal T2W Prostate MRI

Axial T2W Prostate MRI
Findings

• MRI showed markedly dilated bilateral upper moiety ureters (blue arrow and *) with ectopic insertion (red arrow) at the proximal prostatic urethra.
Diagnosis

• Bilateral duplicated collecting system with ectopic insertion of upper moiety ureters in the proximal prostatic urethra and chronic obstruction with atrophy of the upper moiety.
Discussion

- Ectopic ureters are rare and are more common with duplicated collecting system.
- 2 to 12 times less frequently seen in males than in females.
- Ectopic ureters occurring in males are more often associated with a single collecting system.
- Ectopic ureters inserting into the prostatic urethra often present with obstruction and/or urinary tract infections.
- Weigert-Meyer rule - upper pole ureter is more commonly ectopic and the lower pole ureter typically inserts into the trigone, or laterally and cranially to this structure.
• Common ectopic insertion site:
  – 50% prostatic urethra
  – 33% seminal vesicles
  – <10% Prostatic utricle and the vas deferens
  – almost never insert distal to the external sphincter and, as such, this anomaly almost never presents with incontinence.
• Preoperative imaging can help detect incidental findings such as asymptomatic congenital abnormalities of the urinary tract, enabling appropriate surgical planning.
Bibliography

