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Prostatic Adenocarcinoma with Incidental Schwannoma

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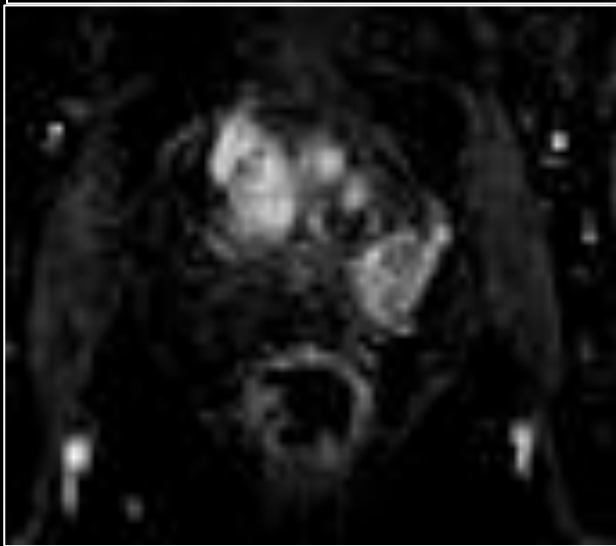
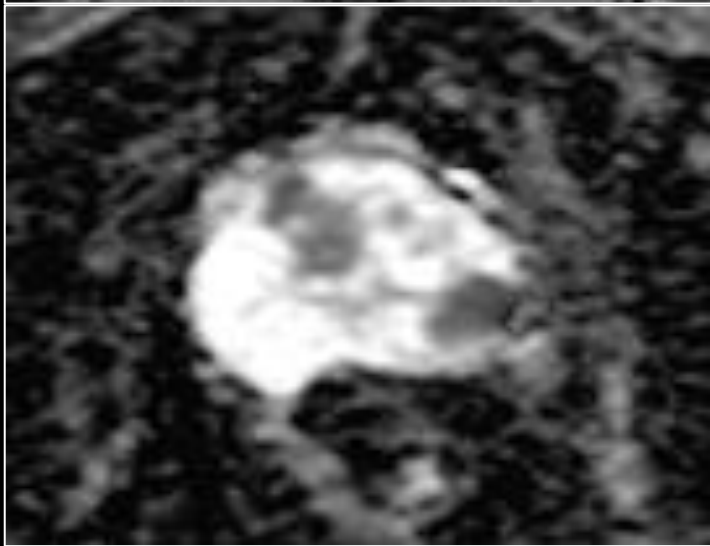
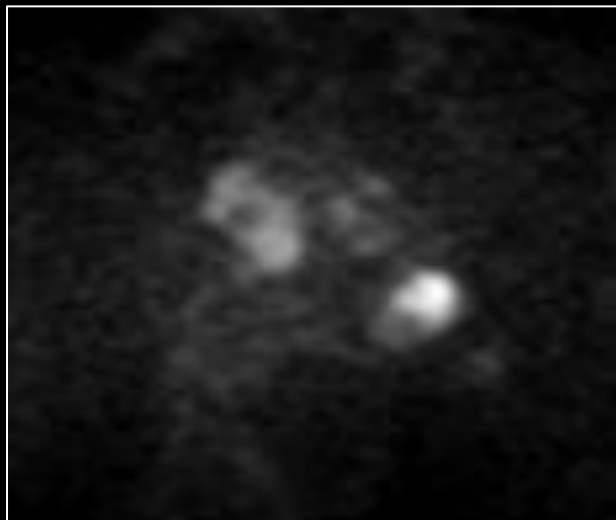
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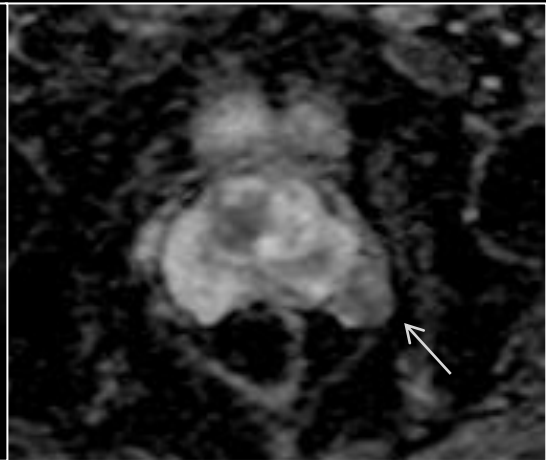
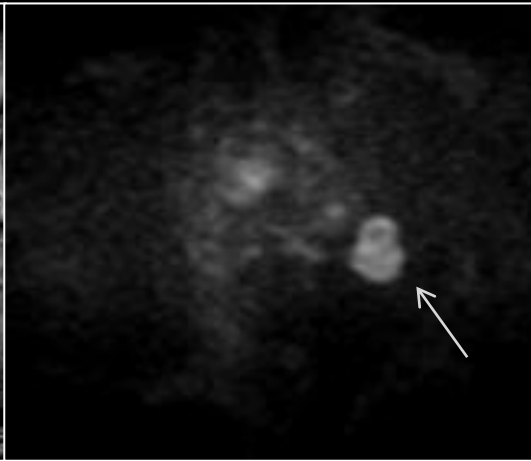
Case History

- 68 year old Chinese
- Presented with lower urinary tract symptoms of frequency and nocturia.
- Serum PSA – 12.2 ng/ml
- Digital rectal examination was unremarkable.
- Multiparametric MRI was requested for investigation of elevated serum PSA level



Multiparametric MRI

- Two T2W hypointense lesions in the right anterior peripheral and transition zones at the mid gland and left posterior peripheral zone at the mid gland
- Restricted diffusion and early focal enhancement in both lesions
- Both lesions are PIRADS 4/5
- MRI ultrasound fusion targeted biopsy - Gleason 4+4 lesions in both lobes



Superior to the left PZ lesion, there is a well circumscribed T2W hypointense periprostatic lesion with restricted diffusion and mild enhancement on DCE. Lesion is abutting the left neurovascular bundle.

Differential diagnosis: Ectopic adenoma, periprostatic lymph node, neurogenic lesion.

Surgical Findings

- Patient underwent robotic assisted laparoscopic radical prostatectomy.
- Operative findings: Soft well circumscribed periprostatic nodule, likely benign.
- Histology: Acinar adenocarcinoma Gleason 4+4 (grade group 4) with small component of tertiary pattern 5 confined to the prostate without EPE. Incidental schwannoma in periprostatic soft tissue. Pelvic lymph nodes are negative for malignancy.
- Patient is currently well, nadir PSA post RALP.

Teaching Points

- Prostatic schwannoma is rare and may be associated with neurofibromatosis
- Most reported schwannoma are in the prostatic tissue but the periprostatic location is likely arising from the neurovascular bundle.
- Restricted diffusion on MRI may mimic extraprostatic disease from primary adenocarcinoma
- Enhancement on DCE is less than the primary adenocarcinoma
- Broad differential diagnosis for peri-prostatic lesions, including benign and malignant lesions

Teaching Points

- A benign entity such as ectopic BPH nodule or schwannoma should be considered in a well circumscribed periprostatic nodule on MRI.
- Rate of malignant transformation in schwannoma is very rare and asymptomatic patients may be treated conservatively.
- Surgery is definitive therapy but may be unnecessary in asymptomatic patients unless it is indicated for concomitant adenocarcinoma, like in this case.

References

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