

Urinary Bladder Paraganglioma Mimicking Urothelial Carcinoma

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BACKGROUND

Bladder paraganglioma is a rare neuroendocrine tumour that may mimic urothelial carcinoma. Instrumentation can provoke hypertension in functional tumours. [1]

Objective: illustrate the diagnostic pitfall and the contribution of PET/CT and serial MRI to disease

CASE PRESENTATION

A 32-year-old woman with burning micturition developed marked hypertension during cystoscopy for bladder stone removal.

Initial pathology suggested muscle-invasive urothelial carcinoma. Repeat transurethral resection and expert pathology review confirmed paraganglioma.

PATHOLOGY & BIOCHEMISTRY

Diagnosis: biopsy-proven paraganglioma

Synaptophysin: diffuse positivity
S100: positive sustentacular cells

Reported normetanephrine level:
>760 pg/mL

IMAGING FINDINGS AND FOLLOW-UP

A BASELINE PET/CT



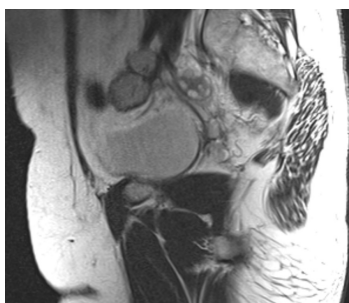
A. CT, PET and fused PET/CT images demonstrate the reported PET-avid lesion at the left VUJ. The primary lesion was biopsy-proven paraganglioma.

B BASELINE AXIAL T2



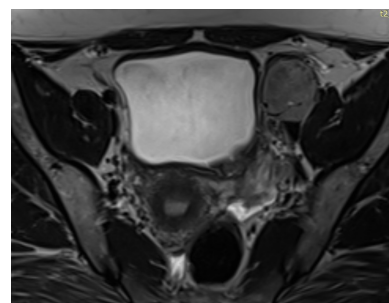
B. Left VUJ mass with an enlarged left pelvic sidewall lymph node.

C BASELINE SAGITTAL T2



C. Sagittal T2 image demonstrates the left VUJ lesion and pelvic sidewall node.

D FOLLOW-UP AXIAL T2



D. Follow-up MRI demonstrates interval enlargement of the VUJ lesion and pelvic sidewall node.

Lesion	Baseline (cm)	Follow-up (cm)
Left VUJ mass	1.5 × 2.0	1.8 × 2.2
Left pelvic sidewall lymph node	2.5 × 2.2	2.9 × 2.8

KEY TEACHING POINTS

Hypertension during bladder instrumentation should prompt consideration of a functional paraganglioma. Expert pathology review resolved the initial diagnostic discrepancy. Serial MRI showed lesion and nodal enlargement.

CONCLUSION: PET/CT and serial MRI supported disease assessment in biopsy-proven bladder paraganglioma, with interval enlargement of the left VUJ lesion and suspicious pelvic nodal disease.

REFERENCES 1. World J Urol. 2022;40:385–390. doi:10.1007/s00345-021-03851-x
2. Bladder paraganglioma: CT and MR imaging characteristics in 16 patients. doi:10.2478/raon-2021-0055