

Incidentally Detected Urinary Bladder Paraganglioma

Takuya Kitamura, 1,2 Kazutaka Nanba, 1,2 Naoki Hayata, and Tetsuya Tagami 1,2

¹Department of Endocrinology and Metabolism, NHO Kyoto Medical Center, Kyoto 612-8555, Japan

Correspondence: Kazutaka Nanba, MD, Department of Endocrinology and Metabolism, NHO Kyoto Medical Center, 1-1 Mukaihata-cho, Fukakusa, Fushimi-ku, Kyoto 612-8555, Japan. Email: knamba@umich.edu.

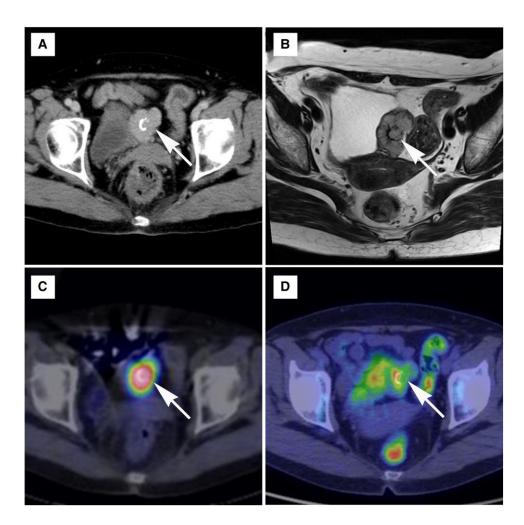
Key Words: urinary bladder paraganglioma, urinary bladder tumor, preoperative diagnosis, incidentaloma

Abbreviations: CT, computed tomography; MIBG, meta-iodobenzylguanidine; UBPGL, urinary bladder paraganglioma.

Image Legend

A 65-year-old woman was referred for a urinary bladder mass incidentally detected on preoperative computed tomography (CT)

for breast cancer (A). She had hypertension for >10 years and experienced palpitations following urination every few months but had no other urinary or catecholamine excess symptoms.



Received: 5 November 2024. Editorial Decision: 27 November 2024. Corrected and Typeset: 19 December 2024 © The Author(s) 2024. Published by Oxford University Press on behalf of the Endocrine Society.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs licence (https://creativecommons.org/licenses/by-nc-nd/4.0/), which permits non-commercial reproduction and distribution of the work, in any medium, provided the original work is not altered or transformed in any way, and that the work is properly cited. For commercial re-use, please contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site—for further information please contact journals.permissions@oup.com. See the journal About page for additional terms.

²Department of Endocrinology, Metabolism, and Hypertension Research, Clinical Research Institute, NHO Kyoto Medical Center, Kyoto 612-8555, Japan

³Department of Urology, NHO Kyoto Medical Center, Kyoto 612-8555, Japan

Magnetic resonance imaging showed the tumor within the bladder muscularis, displaying partly high signal intensity on T1- and T2-weighted images, raising the possibility of urinary bladder paraganglioma (UBPGL) (B, T2-weighted image) [1]. A 24-hour urinalysis revealed elevated levels of norepinephrine and normetanephrine. Increased tracer uptake in the bladder mass on ¹²³I-meta-iodobenzylguanidine (MIBG) scintigraphy (C) supported the UBPGL diagnosis. No other pathologic uptake was observed on the ¹²³I-MIBG scintigraphy. Additionally, ¹⁸F-fluorodeoxyglucose positron emission tomography-CT showed increased accumulation in the urinary bladder mass (D). The patient underwent open partial cystectomy without major complications under doxazosin treatment. Histopathology confirmed the diagnosis of UBPGL. Postoperatively, plasma norepinephrine and urinary normetanephrine levels returned to normal.

Only 6% of UBPGLs are incidentally discovered and accurately diagnosed before biopsy or surgery [2]. Accurate diagnosis and appropriate management of UBPGL are crucial to prevent life-threatening perioperative complications [2]. The integration of multiple imaging modalities and hormonal evaluation provides essential information for diagnosing UBPGL.

Acknowledgments

We thank the medical staff at the NHO Kyoto Medical Center for their support. We would like to thank Enago (www.enago.com) for English language editing.

Funding

This work was partially supported by a grant from the Takeda Science Foundation (to K.N.).

Disclosures

K.N. is an editorial board member of *JCEM Case Reports* and played no role in the Journal's evaluation of the manuscript. K.N. received a research grant from AstraZeneca, which is unrelated to the content of this work. The other authors have nothing to disclose.

Informed Patient Consent for Publication

Signed informed consent obtained directly from patient.

Data Availability Statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

References

- Withey SJ, Christodoulou D, Prezzi D, et al. Bladder paragangliomas: a pictorial review. Abdom Radiol (NY). 2022;47(4): 1414-1424.
- Yu K, Ebbehøj AL, Obeid H, et al. Presentation, management, and outcomes of urinary bladder paraganglioma: results from a multicenter study. J Clin Endocrinol Metab. 2022;107(10):2811-2821.