Molecular Oncologic Imaging 2022;2(3):60-62 *ISSN: 2791-965X*

18F Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography in Duplicated Collecting System Malignancy

Zehra Pınar Koç[1*] Pınar Pelin Özcan[2] Erdal Doruk[3] Yasemin Karabulut[4]

**Corresponding Author*
[1,2]Mersin University, Faculty of Medicine, Department of Nuclear Medicine, Mersin, Turkey
[3]Mersin University, Faculty of Medicine, Department of Urology, Mersin, Turkey
[4]Mersin University, Faculty of Medicine, Department of Pathology, Mersin, Turkey

Abstract

Duplicated collecting system is a rare condition which is usually discovered during childhood. This is the report of the 18F FDG PET/CT images of an adult patient with malignant tumor of an incidentally detected duplicated collecting system.

Keywords**:** *duplicated collecting system, malignancy, fluorodeoxyglucose.*

Address for Correspondence: Zehra Pınar Koç, Mersin University Training and Research Hospital, Clinic of Nuclear Medicine, Mersin, Turkey
Phone: + 90-324-2410000/22524 **E-mail:** zehrapinarkoc@gmail.com **ORCID ID:** orcid.org/0000-0002-3274-5790 **Received: 23.12.2022 Accepted: 29.12.2022 Published: 31.12.2022**

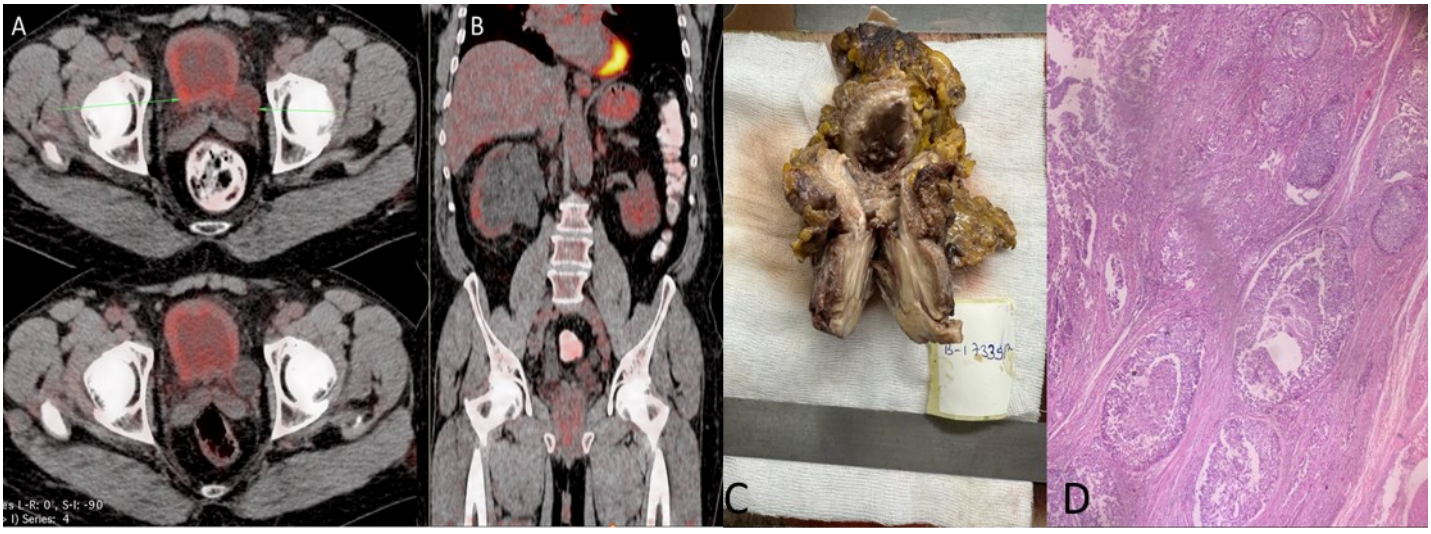

Figure 1. The axial images of 18F FDG PET/CT in early (lower) and late phase (upper) demonstrating right distal ureter oryphis tumor showing tumoral FDG uptake as well as suspicious FDG uptake at diverticular lesion at left ureterovesical junction at same slice. B. The horizontal projection image of the same patient demonstrating complete duplication of right collecting system. C. and D. Pathology images of the same patient demonstrating the right collecting system tumor. Duplication of a collecting system is a rare finding especially in adulthood. The malignant tumor of a duplicated collecting system demonstrated by 18F FDG PET/CT was not presented previously in the literature. There is the report of case with renal pelvic tumor with skin invasion presented as a mass lesion on 18F FDG PET/CT in the literature (1). Renal pelvic tumors are also rare which are proposed to be associated with chronic irritation or abnormalities (2–4). The malignancy incidentally detected by 18F FDG PET/CT might also be associated with the previously unknown duplication anomaly of the patient.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Concept: Z.P.K., P.P.O., **Design:** Z.P.K., P.P.O., **Supervision:** Z.P.K., P.P.O., E.D., Y.K., **Data Collection and/or Processing:** Z.P.K., P.P.O., E.D., Y.K., **Analysis and/or Interpretation:** Z.P.K., P.P.O., E.D., Y.K., **Literature Review:** Z.P.K., **Writer:** Z.P.K.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

References

1. Sun, X., & Li, Y. (2020). Incidental squamous cell carcinoma of renal pelvis presenting as skin invasion: a case report. *Journal of medical case reports*, *14*(1), 244. https://doi.org/10.1186/s13256-020-02530-6
2. Li, M. K., & Cheung, W. L. (1987). Squamous cell carcinoma of the renal pelvis. *The Journal of urology*, *138*(2), 269–271. https://doi.org/10.1016/s0022-5347(17)43116-8

3. Jiang, P., Wang, C., Chen, S., Li, J., Xiang, J., & Xie, L. (2015). Primary renal squamous cell carcinoma mimicking the renal cyst: a case report and review of the recent literature. *BMC urology*, *15*, 69. https://doi.org/10.1186/s12894-015-0064-z
4. Ogawa, M., Morikawa, T., Toyoshima, T., & Fukayama, M. (2014). Squamous cell carcinoma in a duplicated renal pelvis. *International journal of clinical and experimental pathology*, *7*(11), 7957–7961