Images in Practice

Kidney Res Clin Pract 2023;42(5):660-661
pISSN: 2211-9132 • eISSN: 2211-9140
https://doi.org/10.23876/j.krcp.23.185

KIDNEY RESEARCH AND CLINICAL PRACTICE

Unilateral renal displacement in an autosomal dominant polycystic kidney disease patient

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A 53-year-old female patient presented at our hospital for further evaluation and management of polycystic kidney and liver disease, initially detected via ultrasound. Her family history revealed a similar pattern of polycystic kidney disease, affecting two sisters, a brother, and her mother. Additionally, her aunt was on hemodialysis due to end-stage kidney disease.

Genetic testing confirmed the autosomal dominant polycystic kidney disease (ADPKD) diagnosis with a *PKD1* gene mutation. Initial laboratory tests indicated a serum creatinine level of 0.70 mg/dL, an estimated glomerular filtration rate (eGFR) of 78 mL/min/1.32 m^2, and a urinary albumin to creatinine ratio of 63.0 mg/g Cr. Given her age and eGFR exceeding 25 mL/min/1.32 m^2, an enhanced abdomen computed tomography (CT) was performed to determine the total kidney volume, a prerequisite for initiating tolvaptan therapy. The CT scan revealed an enlarged kidney and liver, with numerous cystic lesions of varying sizes (Fig. 1). Her height-adjusted total kidney volume was 1,163.3 mL/m, classifying her as Mayo class 1D. Consequently, tolvaptan therapy was initiated. The patient's medical history included her mother's sudden death. Therefore, a brain

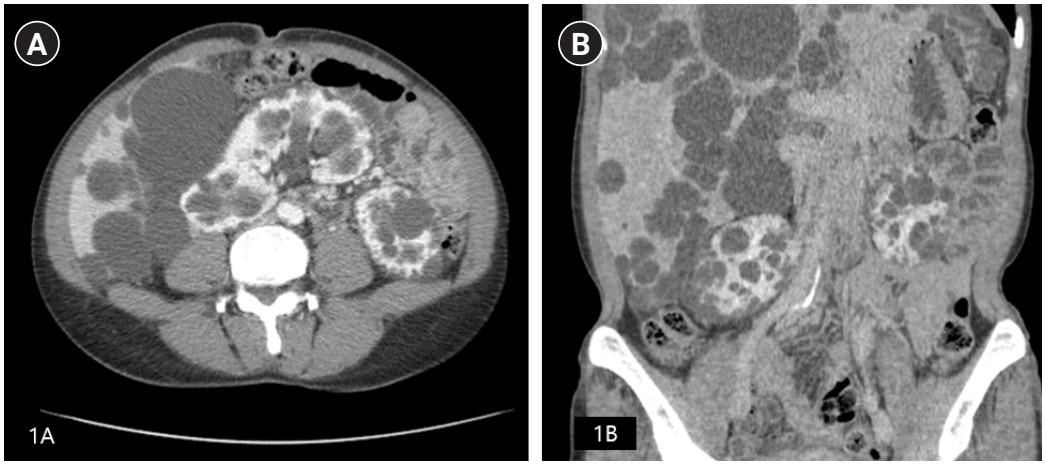

Figure 1. Axial and coronal view of the abdominal computed tomography scan taken at the time of diagnosis.

Received: July 12, 2023; **Accepted:** July 20, 2023
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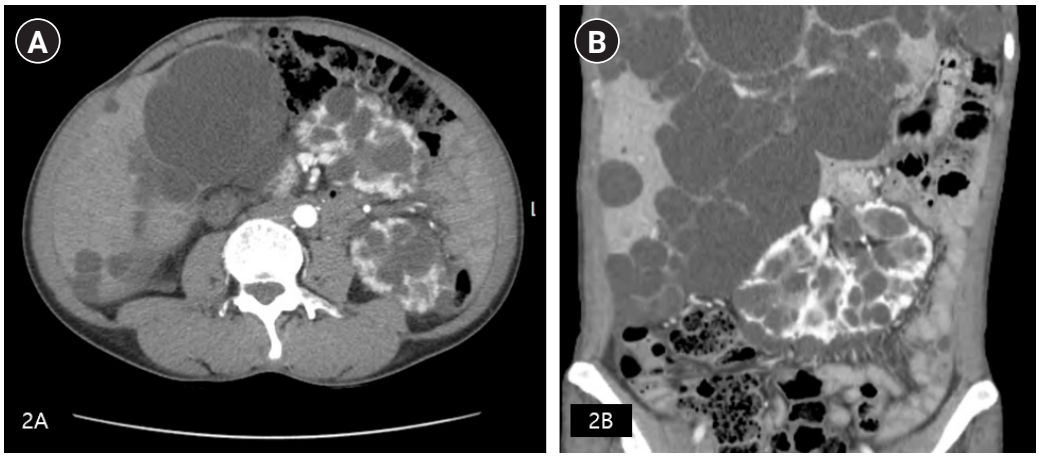

Figure 2. **Axial and coronal view of the abdominal computed tomog aphy scan taken after 2 years of follow-up.**

magnetic resonance angiography was performed to evaluate cerebral aneurysms, but there was no abnormality. Two years after taking tolvaptan, a follow-up CT was performed, and we found interesting points. On her past CT scan, the right kidney was on the right side beneath the liver, the recent CT scan showed both kidneys on the left side. This displacement of the right kidney was attributed to the increased number and size of hepatic cysts (Fig. 2). Acquired renal displacement can occur due to the enlargement of surrounding organs or the presence of space-occupying lesions within the abdominal cavity. In this case, the patient's ADPKD and the progressive hepatomegaly resulting from the expanding hepatic cysts led to the right kidney displacement.

Conflicts of interest

All authors have no conflicts of interest to declare.

Funding

This study was supported by a grant from the Chonnam National University Hospital Biomedical Research Institute (BCRI-22040).

Acknowledgments

This study was approved by the Chonnam National University Hospital (No. CNUH-EXP-2023-166). Informed consent has been obtained from the patient.

Data sharing statement

The data used in this article are available from the corresponding author upon reasonable request.

Authors' contributions

Conceptualization, Data curation: JK, EHB
Writing–original draft: SKM
Writing–review & editing: SWK
All authors read and approved the final manuscript.

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