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**A Case of Renal Injury Caused by Renal Artery Aneurysm in the Right Single
Kidney: Improvement Following Embolization**

Kiyoung Choi¹, Somin Lee Lee¹, Hyun Lee Kim¹, Jong Hoon Chung¹, Byung Chul Shin¹, Youngmin Yoon²

¹Department of Internal Medicine-Nephrology, Suwan happiness geriatric hospital, Korea, Republic of

²Department of Internal Medicine-Nephrology, Suwan happiness geriatric hospital, Korea, Republic of

Case Study : Renal artery aneurysms, uncommon vascular malformations usually detected incidentally through imaging, are characterized by focal dilatation of the renal artery, reaching at least twice the diameter of the adjacent normal segments. A 72-year-old female, who has a history of hypertension spanning 20 years, presented to the nephrology department due to decreased renal function. The initial laboratory findings revealed a blood urea nitrogen (BUN) level of 76.1 mg/dL, a creatinine level of 5.40 mg/dL, and a spot urine protein to creatinine ratio of 0.38. Kidney ultrasonography revealed a single right kidney with hydronephrosis. Unenhanced computed tomography unveiled a 6.4 cm high-attenuation lesion exhibiting border calcification in the right kidney, resulting in the manifestation of hydronephrosis. We next conducted a contrast abdominal MRI that revealed a 6.4 cm arterial enhancing lesion with internal hemorrhage and rim calcifications in the right kidney, findings consistent with a renal artery aneurysm. Considering the size of the renal artery aneurysm and the MRI findings, we opted for endovascular embolization. However, after two months, her BUN was 42.5 mg/dL, and creatinine was 2.87 mg/dL. We report a unique case involving the incidental discovery of a large renal artery aneurysm in a solitary kidney, effectively treated with endovascular embolization.