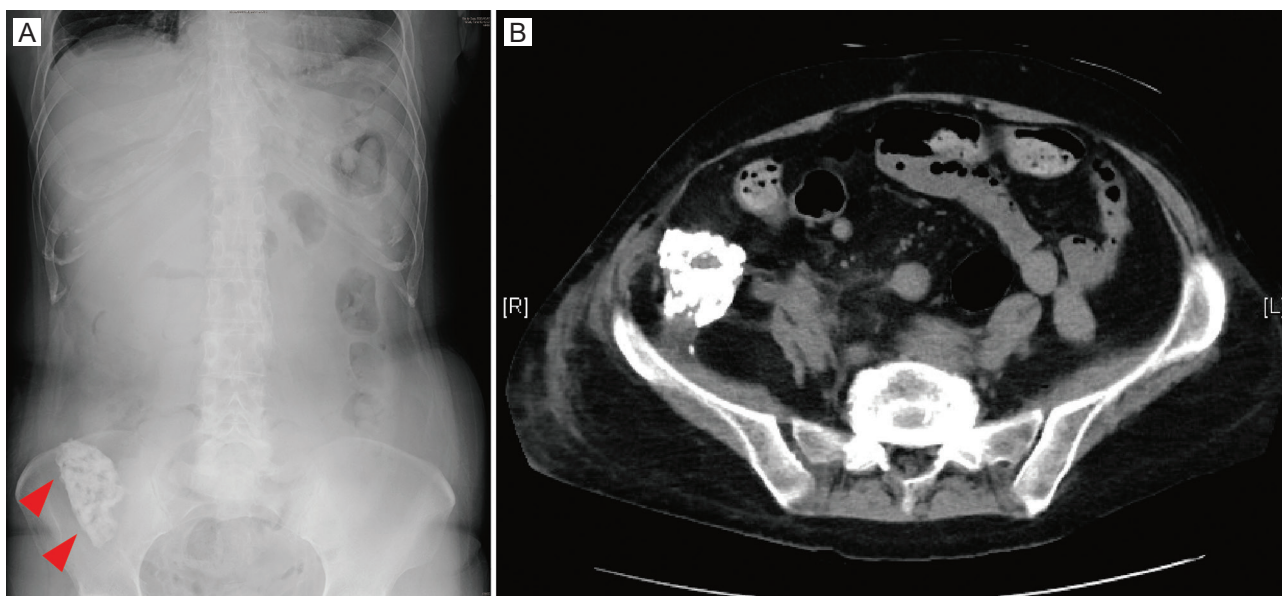


Massive Calcification in A Nonfunctioning Transplanted Kidney

IJKD 2021;15:168
www.ijkd.org



A 57-year-old woman undergoing intermittent hemodialysis visited a hospital due to lower back pain. It was realized that the symptom was caused by a hemorrhage from renal cyst in her native kidney, and it was cured. However, a high density mass was also incidentally found in her right pelvic cavity on abdominal X-ray (Figure A). CT revealed that it was massive calcification in nonfunctioning transplanted kidney (Figure B). She underwent renal transplantation 26 years ago and restarted hemodialysis therapy 23 years ago due to chronic rejection. Of course, no therapy was required for the calcification. The appearance of failed transplanted kidneys varies widely in size, shape, and X-ray density.¹ Calcification in the present case was extraordinary. On the other hand, the level of vascular calcification was not obvious, as seen in the abdominal aorta in Figure B. The discrepancy in the level of calcification occurred because vascular calcification is mainly caused by the inappropriate control of chronic kidney disease-mineral and bone disorder whereas calcification of failed allografts may be caused by combinatorial mechanisms including apoptosis, oxidative stress, and excessive endoplasmic reticulum stress.² This case illustrates that the mechanisms of calcification are different between the vasculature and the failed allografts.

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