

## A case of post-procedural lumbar artery bleeding in a patient who underwent a renal biopsy

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**Introduction:** Despite ongoing research on new biomarkers and other noninvasive diagnostic tools of renal function, percutaneous renal biopsy remains the gold standard procedure for diagnosing renal disease. Using ultrasound guidance or an automated biopsy gun lowers the risk of complications such as pain, bleeding, and small hematomas. Serious complications, including the need for nephrectomy or death, are very rare. We recently experienced a patient with active bleeding in the lumbar artery that occurred after renal biopsy.

**Case Report:** A 62-year-old female presented with unexplained fever. Laboratory findings showed white blood cell count of 10700/mm<sup>3</sup>, C-Reactive Protein level of 16.19mg/dL, but no specific findings on CT scans. She had hematuria and proteinuria with positive for p-ANCA. She was referred to nephrology to manage acute renal failure. Her kidney function continued to decline, so she began hemodialysis treatment. Suspected Rapidly Progressive Glomerulonephritis (RPGN) due to ANCA-associated vasculitis, kidney biopsy was performed. After the biopsy, she complained of severe pain, so had an abdominal CT scan. It showed a hematoma with active bleeding in the left posterior kidney, but the causative artery could not be identified. Emergency angiography was performed for diagnosis and treatment, and bleeding was confirmed in the L1 lumbar artery. Angiographic embolization was successfully performed, and no additional bleeding was observed. The patient was pathologically diagnosed with microscopic polyangiitis and treated with cyclophosphamide and methylprednisolone. During her hospitalization, she suddenly complained of headache and double vision, which turned out to be due to a cerebellar hemorrhage. She rapidly progressed to coma within hours, developed cardiac arrest, and was resuscitated. The next day, however, she died from a worsening cerebral hemorrhage.

**Discussion:** Lumbar arterial bleeding after a kidney biopsy is rare but can be fatal if it occurs. However, it can be successfully managed with immediate identification and intervention.

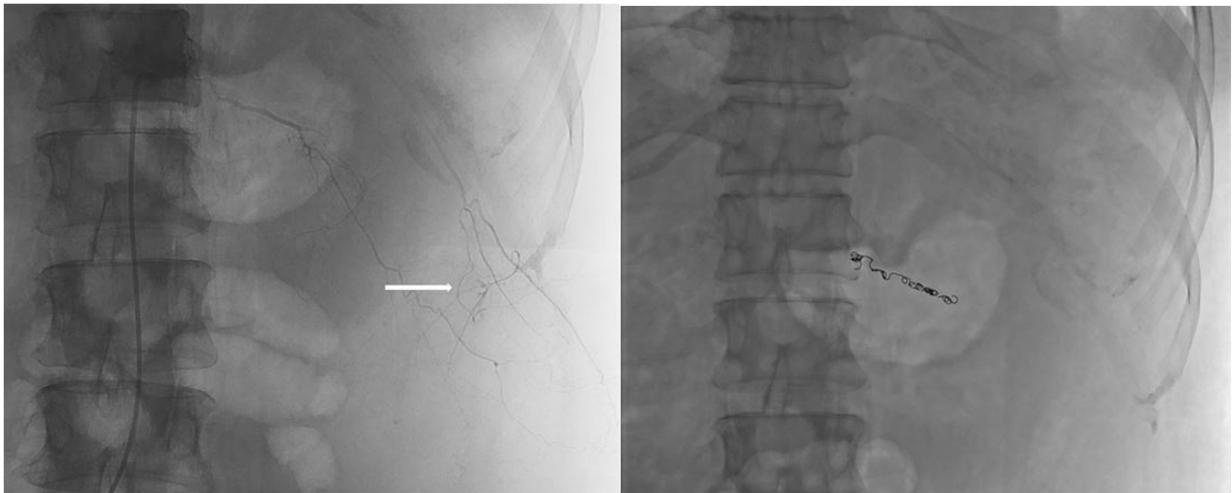


Figure 1. (Left) Left L1 lumbar angiogram demonstrates active extravasation of contrast media in the distal branch. (Right) Embolization was performed.<sup>4)</sup>