A case of renal infarction in patients with polyangiitis nodosa

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Polyangiitis nodosa is a small-vessel vasculitis that affects medium-sized and small-sized arteries. Polyangiitis nodosa involve the kidney as crescentic glomerulonephritis. It also is known to increase the risk of infarction in small arteries. However, there has been rare reports of renal infarctions. We report a case of renal infarction with polyangiitis nodosa.

Case: A 59-year-old woman visited the emergency room with sudden right lateral abdominal pain that occurred 2 hours before admission. This patient has been following a cardiologist for hypertension and hyperlipidemia for 5 years, and her medication was statin 10mg per day. She was diagnosed with mitral valve stenosis on an echocardiogram before 2 weeks ago and was receiving warfarin medication. Her initial blood pressure was 117/63 mmHg, heart rate 55/min, respiration rate 20/min and body temperature 36.7°C. Blood tests showed Hb 12.7g/dL, Alb 3.7g/dL, BUN/Cr 12.0/0.75mg/dL, CPK 14 U/L, and LDH 1705 IU/L. Contrast-enhanced computed tomography showed diffuse hypo-dense lesions in right kidney, which indicate renal infarctions. She was admitted to nephrology department and treated with conventional heparinization. On 2nd admission day, she suffered from high fever of 38.3°C. WBC was 10,400uL, segment neutrophil 8,700uL and CRP was 8.7mg/dL. In addition, she showed generalized edema as well as pulmonary edema on her chest PA. On 4th admission day, fever continued. WBC and CRP were 14,110uL and 15.2mg/dL respectively. In evaluation of immuno-serologic markers, C-ANCA 2.87 and FANA (1:160) were positive. On 5th admission day, high dose steroid 60mg and cyclophosphamide 100mg were prescribed. On 6th admission day, fever subsided and WBC, CRP reduced to 11,500uL, 5.3mg/dL. On 7th admission day, renal biopsy was performed. On 8th admission day, renal angio-CT showed decreased extent of renal infarction (figure 1). On 9th admission day, patient discharged with steroid and cyclophosphamide.

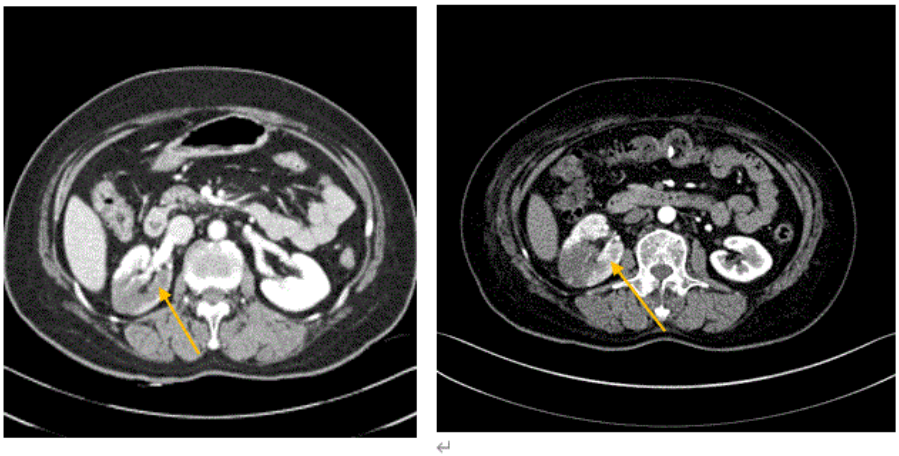

Figure 1 Axial section of CT scan of the patients. Hypo-attenuated lesion was showed in right kidney on admission day CT. the extent of hypo-attenuated lesion was decreased on 8th admission day CT (yellow arrow).