

Polyarteritis Nodosa and Antiphospholipid Syndrome Causing Bilateral Renal Infarction

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Polyarteritis nodosa (PAN) combined with antiphospholipid syndrome (APS) is a rare clinical condition and sometimes creates a therapeutic dilemma for clinicians, since anticoagulation risks aneurysmal rupture¹.

A 34-year-old man without remarkable history presented with migratory abdominal pain followed by severe alternating bilateral flank pain within 10 days. Acute abdomen was suspected while he was brought to our emergency department. Abdominal computed tomography with contrast (Figure 1A) revealed bilateral renal wedge-shaped infarction and a suspicious renal arterial aneurysm. Renal angiogram (Figure 1B and 1C) showed multiple microaneurysms at bilateral renal arteries, with severely narrowed arterial branches with thrombosis and multiple infarcted areas.

Acute deterioration of renal function and new-onset marked hypertension were noted upon admission. The serum level of D-dimer was elevated and the diluted Russell Viper Venom test time (dRVVT) was positive. There was no other detectable autoantibody, and the patient tested negative for hepatitis B infection. Renal biopsy showed focal segmental glomerulosclerosis without evidence of glomerulonephritis or small-vessel vasculitis. Enoxaparin was given, and his renal function returned to normal range after 2 courses of pulsed methylprednisolone with gradually tapering doses of oral prednisolone and monthly pulsed intravenous cyclophosphamide treatment for 6 months. His hypertension disappeared gradually after an additional right renal arterial stent.

Although renal involvement is not uncommon in PAN, simultaneous involvement of bilateral renal arteries with infarction is very rare²; this may be a manifestation of the complicated APS in our case. The extent of organ involvement reflects disease severity of PAN, and initial aggressive treatment with immunosuppressants may improve the prognosis of severe cases³.

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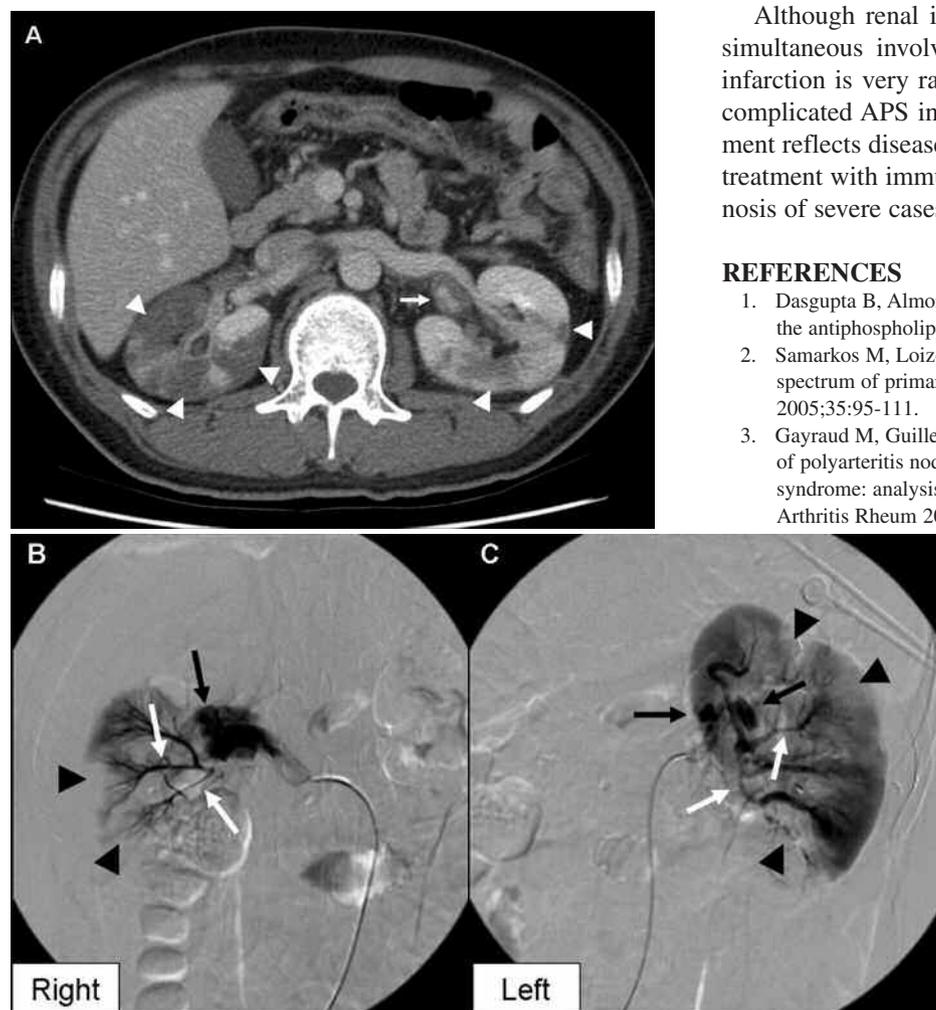


Figure 1. A. Abdominal computed tomography scan shows bilateral renal wedge-shaped infarction (arrowheads) and suspicious renal arterial aneurysm (arrow). B, C. Renal angiogram shows multiple microaneurysms at bilateral renal arteries (black arrows), with severely narrowed arterial branches with thrombosis (white arrows) and multiple infarcted areas (arrowheads).