Symmetric Peripheral Gangrene as an Emerging Manifestation of Polyarteritis Nodosa

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A 62-year-old Japanese man with a history of Raynaud's phenomenon for several years was admitted because of progressive symmetrical peripheral cyanosis with pain. On admission, his examination was unremarkable except for marked ischemic changes of the fingertips; and laboratory testing results including urinalysis, complete blood counts, liver function, renal function, and erythrocyte sedimentation rate were normal. He did not smoke cigarettes. During hospital-

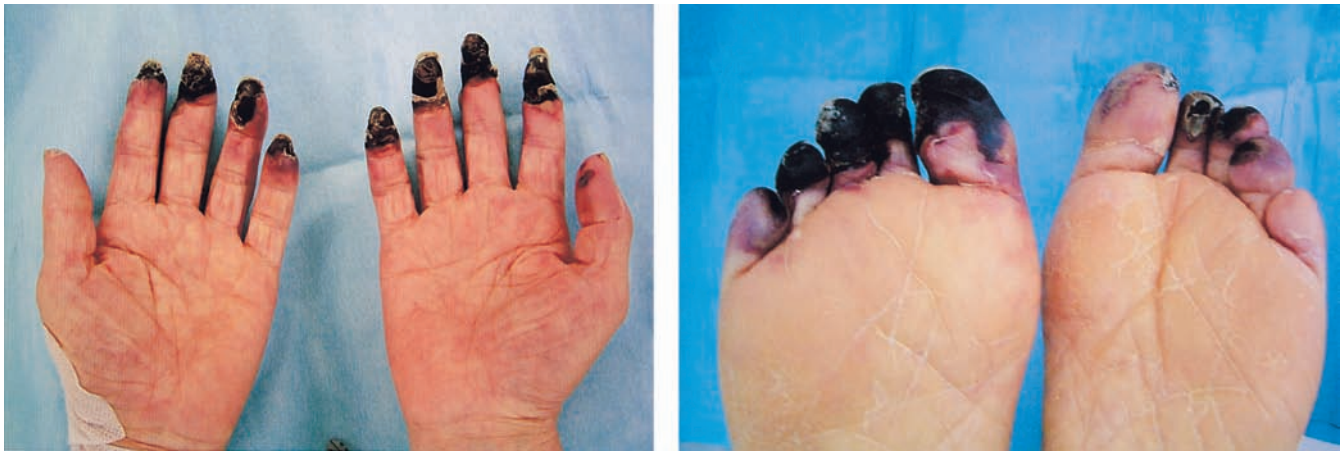

Figure 1. Ischemic gangrene of all fingers and toes.

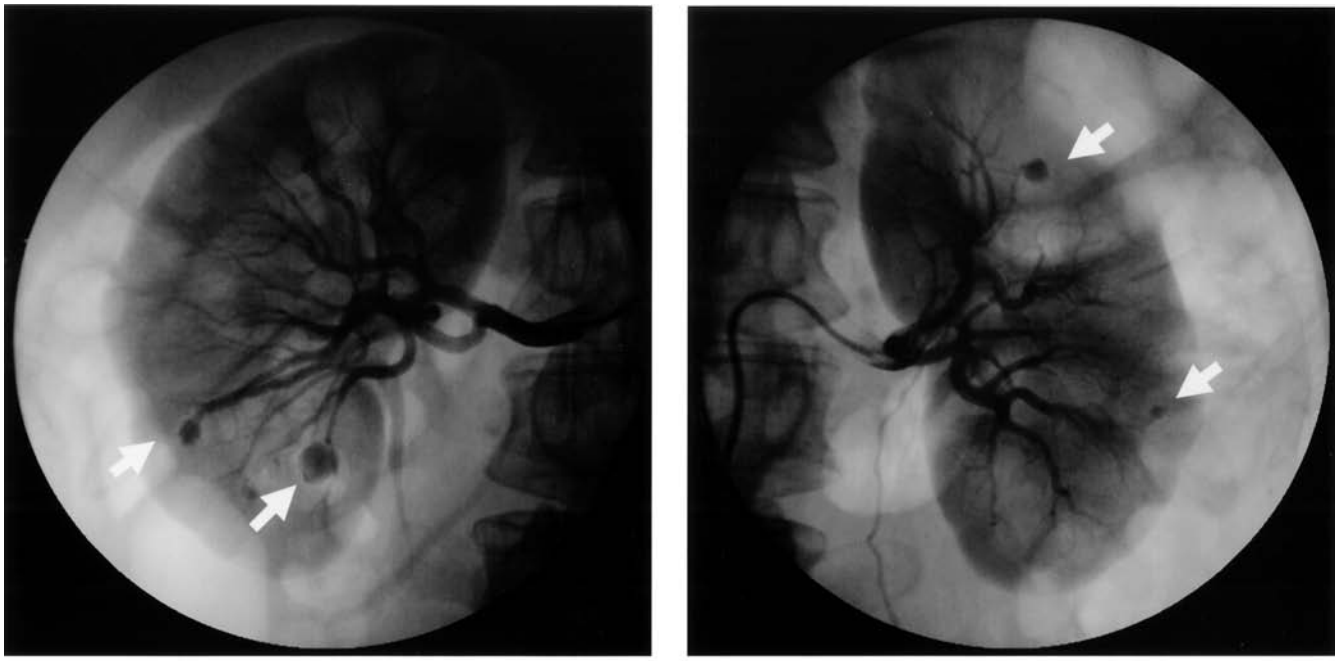

Figure 2. Renal angiogram shows arterial aneurysms in the kidneys (arrows).

ization, his fingers and toes became more cyanotic and then rapidly became necrotic in spite of the presence of normal peripheral pulses (Figure 1). Constitutional manifestations (i.e., fever, general myalgia, and weight loss) developed, with marked inflammatory signs and progressive anemia. Reddish-blue, reticular, mottled discolorations and livedo reticularis also appeared on the skin of his arms and legs, suggesting vasculitic syndrome. Tests for antinuclear antibodies, hepatitis B/C viruses, cryoglobulin, and antineutrophil cytoplasmic antibodies were negative. Magnetic resonance angiography revealed no remarkable findings for the arteries of the extremities. Because of the risk of exacerbating the digital gangrenous lesions with biopsy, visceral angiography was performed. A renal angiogram showed several aneurysms, and irregularity and truncation of the intrarenal arterial branches (Figure 2), indicating classical polyarteritis nodosa. He received oral corticosteroids and azathioprine. His clinical condition stabilized, with no progression of the digital gangrene, and he was discharged.

Although peripheral vascular diseases are common manifestations of polyarteritis nodosa[1-5], digital gangrene without systemic inflammatory symptoms, as in our case, is thought to be an unusual initial manifestation of this disease. As Stanson, *et al* have reported[5], total abdominal angiography can indeed reveal occult renal aneurysms. Polyarteritis nodosa should be considered as an underlying disease that can initially lead to symmetrical digital gangrene with Raynaud's phenomenon.

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