Clinical vignette

Three-month isolated digital gangrene as an initial manifestation of classic polyarteritis nodosa

A 71-year-old man presented with digital gangrene worsening over 2 months (Fig. 1A and B). The bilateral radial arteries were palpable, but the left posterior tibial artery and bilateral dorsalis pedis arteries were not convincingly palpable. Neurological examination was normal and there were no skin lesions. Serum creatinine, serological evaluation of autoimmune and haematological diseases causing digital gangrene and urine test were normal. Contrast-enhanced thoraco-abdominal CT revealed nothing significant. Angiography showed stenosis or obstruction of the palmar arch, plantar arch and arcuate artery without the corkscrew collaterals (Fig. 1C and D). Three months after the onset, right peroneal nerve paralysis occurred. Nerve conduction studies suggested mononeuritis multiplex. Biopsy of right peroneus brevis muscle and right peroneal nerve revealed vasculitic neuropathy consistent with PAN. Four months after the onset he had macroscopic haematuria, proteinuria and elevation of serum creatinine. A diagnosis of classic PAN was made. Inflammation subsided and renal function improved after treatment with oral prednisolone and i.v. CYC. His necrotic fingers were amputated, but the toes recovered completely. Although digital gangrene is a very rare manifestation of classic PAN [1], it could be the only symptom of this disease at the early stage.

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Fig. 1 Digital gangrene and angiography

Patient’s (A) fingers and (B) toes are dark purple and areas of gangrene are noted. Angiography of the (C) hands and (D) feet shows stenosis or obstruction of the palmar arch, plantar arch and arcuate artery without the corkscrew collaterals.

Reference