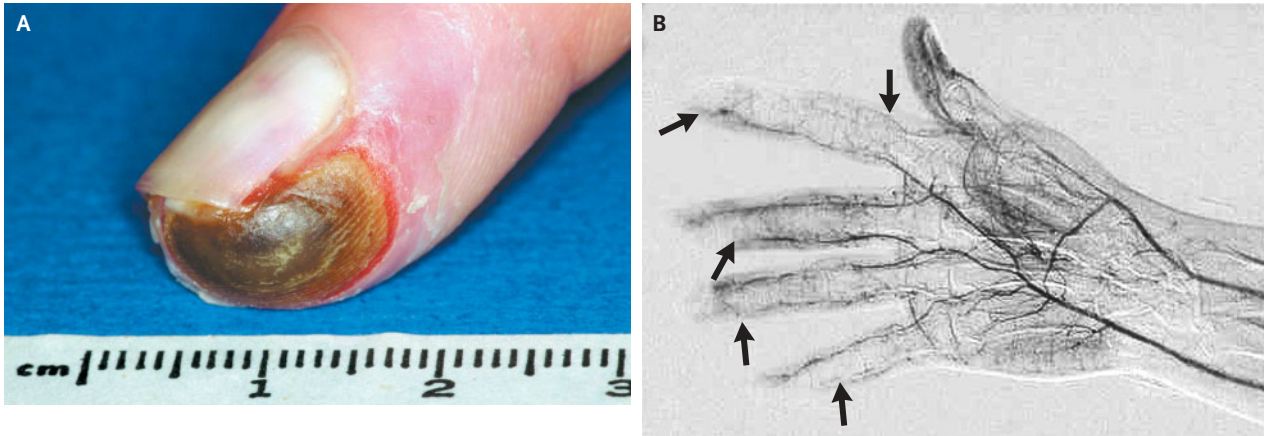


IMAGES IN CLINICAL MEDICINE

Calcific Arteriopathy



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A 38-YEAR-OLD MAN WHO HAD UNDERGONE RENAL AND PANCREATIC transplantation five years earlier was referred because of acral gangrene of both hands. The patient also had type 1 diabetes and was a nonsmoker. Within the previous month, painful paraungual blue spots had developed on three of the patient's fingers, including the fourth digit of his left hand (Panel A); ulcers had then developed on the affected fingers. His renal function had deteriorated, a fact attributed to the effects of infection with polyomavirus type BK. The systemic blood pressure was 130/80 mm Hg, and the segmental arterial pressures in the upper limbs were more than 300 mm Hg, with normal pulse signals. Arteriography revealed diffuse arterial occlusions (Panel B, arrows). The serum calcium level was 2.52 mmol per liter, the phosphorus level was 1.04 mmol per liter, and the creatinine level was 2 mg per deciliter (177 μ mol per liter). The patient was treated with calcium antagonists, antiplatelet therapy, and heparin. However, within six months, ischemia had progressed in all digits except for the thumbs, and he underwent partial amputation of the second, third, and fourth fingers of both hands. Microscopical examination of an amputated digit showed ischemic necrosis with inflammatory infiltration, medial calcifications of medium-sized arteries, and intimal hyperplasia with luminal thrombosis. Despite the amputations, the patient continues to have ischemic pain, and only the thumbs have adequate perfusion.

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