Clinical Images

Calciophylaxis: Severe Calcification of the Arteries

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Figure 1. Image of left hand showing purplish tender macules on fingertips and ulceration of hypthenar eminence.

A 65-year-old man with diabetes mellitus and end-stage renal disease, on dialysis for 6 years, developed painful lesions on both hands 3 months prior to evaluation. Examination showed firm, tender, violaceous lesions with early ulceration on both hypothenar eminences, and exquisitely tender purple macules on fingertips without ulceration (Fig. 1). Radial pulses were strong bilaterally. Radiographs showed severe vascular calcifications of ulnar and radial arteries (Fig. 2). Significant elevations of parathyroid hormone (1340 pg/ml), phosphorous (10.1 mg/dL) and calcium-phosphate product (100 mg²/dL²) were noted. Punch biopsy of the left hypothenar eminence demonstrated dystrophic calcification consistent with calciophylaxis. Calciophylaxis, also known as ‘calcific uremic arteriopathy,’ is a rare and devastating disorder characterized by arterial calcification and tissue necrosis, commonly seen in end-stage renal disease patients on hemodialysis.¹ The

Figure 2. Radiograph of left forearm showing severe vascular calcifications of ulnar and radial arteries.

pathogenesis is unclear. Skin biopsy is recommended for diagnosis. Prognosis is very poor, with mortality rates as high as 80% once ulceration develops.² Our patient’s parathyroid hormone level and calcium-phosphate product responded well to treatment with phosphate binders and low calcium dialysis, but he died 2 months later from sudden cardiac arrest.

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