

IMAGES IN CLINICAL MEDICINE

Calciphylaxis with Arterial Calcification



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A 53-YEAR-OLD WOMAN WITH DIABETES MELLITUS AND END-STAGE RENAL disease who was undergoing hemodialysis presented with fever, painful finger necrosis, and nonhealing ulceration of the legs. Hand radiographs showed no evidence of osteomyelitis but did show severely calcified arteries and the loss of soft tissue at the tips of the index and middle fingers (visible in the image, along with an intravenous catheter at the wrist). The results of skin biopsy were consistent with calciphylaxis. Calciphylaxis is a syndrome of arterial calcification and tissue necrosis that most often occurs in patients with end-stage renal disease who are undergoing hemodialysis. The mortality rate is as high as 80%, with death usually from associated wound infection and sepsis. The pathogenesis of calciphylaxis remains unclear, but the patient was found to have two associated risk factors: hyperparathyroidism (parathyroid hormone level, 1113 pg per milliliter) and an elevated calcium–phosphorus product (90 mg² per square deciliter). She was treated with broad-spectrum antibiotics, cinacalcet, low-calcium dialysis baths, phosphate binders, and sodium thiosulfate. The serum parathyroid hormone, calcium, and phosphorus levels improved, but the skin necrosis and clinical status worsened. The patient died after a 1-month hospitalization.

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