

IMAGES IN CLINICAL MEDICINE

Calcinosis Associated with Renal Failure



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A 36-YEAR-OLD WOMAN PRESENTED WITH PAINLESS, SUBCUTANEOUS NODULES THAT HAD DEVELOPED DURING the previous 5 months on her buttocks, shoulders, and left wrist (Panel A). Her medical history was notable for glomerulonephritis leading to dialysis at 14 years of age. She later underwent transplantation of a kidney from a deceased donor; the transplant failed, and for the 3 years since, the patient has been undergoing peritoneal dialysis. A plain film of her left wrist showed numerous lobulated, septated calcific masses (Panel B). Laboratory tests revealed severe secondary hyperparathyroidism, with a calcium level of 10.5 mg per deciliter (2.6 mmol per liter) (normal range, 8.4 to 10.2 [2.1 to 2.6]), a phosphate level of 6.4 mg per deciliter (2.1 mmol per liter) (normal range, 2.7 to 4.5 [0.9 to 1.5]), an alkaline phosphatase level of 458 U per liter (normal range, 40 to 120), and a parathyroid hormone level of more than 2000 pg per milliliter (normal range, 15 to 65). Attempts to suppress the parathyroid hormone level with the use of medication were unsuccessful. Three months after a partial parathyroidectomy to remove a 4-g left hyperplastic inferior gland, there was complete resolution of the subcutaneous nodules, including those in the wrist (Panels C and D). Laboratory values improved considerably: calcium level, 9.8 mg per deciliter (2.5 mmol per liter); phosphate level, 5.4 mg per deciliter (1.7 mmol per liter); and parathyroid hormone level, 177 pg per milliliter. Tumoral calcinosis is characterized by soft-tissue calcium and phosphate deposits, which are most commonly due to chronic renal failure.

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