

IMAGES IN CLINICAL MEDICINE

Bilateral Kidney Calcifications



A 37-YEAR-OLD MAN WAS REFERRED FOR EVALUATION OF DISTAL RENAL tubular acidosis. Laboratory evaluation revealed a serum potassium level of 3.3 mmol per liter, a bicarbonate level of 16 mmol per liter, a calcium level of 9.3 mg per deciliter (2.3 mmol per liter), a phosphate level of 2.1 mg per deciliter (0.7 mmol per liter), a creatinine level of 3.0 mg per deciliter (265 μ mol per liter), a parathyroid hormone level of 62 pg per milliliter, and an estimated glomerular filtration rate of 25 ml per minute per 1.73 m² of body-surface area. He had been given a diagnosis of renal tubular acidosis at 9 years of age on the basis of metabolic acidosis with a high urinary pH and hypokalemia associated with nephrocalcinosis. At that time, there was evidence of bilateral nephrocalcinosis on plain abdominal radiography. The patient was treated with sodium bicarbonate and potassium supplementation and had normal growth but did not undergo medical follow-up or treatment between 15 and 37 years of age. The plain film of the abdomen obtained during the referral visit (see figure) revealed bilateral symmetric calcification of the renal parenchyma, sparing only the renal pelvis. This finding contrasts with those classically associated with type 1 distal renal tubular acidosis, in which nephrocalcinosis is present but is limited to the renal medulla. Three years after sodium bicarbonate and potassium supplementation was restarted, the patient's renal function has remained stable.

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