Calcification of end-stage renal allograft in a peritoneal dialysis patient

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摘要

Abstract

A 40-year-old female with end-stage renal disease received a cadaveric renal transplant with prednisolone and cyclosporin A in 1990. Chronic rejection developed and continuous ambulatory peritoneal dialysis (CAPD) was started in 1994. A plain abdominal X-ray did not show renal allograft calcification at that time. Secondary hyperparathyroidism developed with elevated (Ca x P) product and intact parathyroid hormone (iPTH; 1217 pg/ml), requiring subtotal parathyroidectomy (PTX) in 1998. In December 2002, diffuse calcification of the renal allograft was detected by abdominal X-ray (Figure 1) and confirmed by computed tomography (CT; Figure 2). There was no other soft tissue calcification

Calcification of an end-stage renal allograft usually manifests insidiously with trivial symptoms and is sometimes found incidentally. Damaged or necrotic tissues, such as renal cortical necrosis or rejected renal allograft, have similar inflammatory histology and can result in dystrophic calcification, even in the presence of normal serum calcium and phosphorus levels [1]. In the present case, due to lack of serial plain films of the abdomen after peritoneal dialysis catheter implantation, the precise time of renal allograft calcification is uncertain. It might have preceded the subtotal PTX. The chronic inflammatory rejection process might be a triggering factor, together with the high serum (Ca x P) product and secondary hyperparathyroidism. Despite the improved serum (Ca x P) product and iPTH level after PTX, renal calcification did not resolve. Unless specific clinical indications are present, transplant nephrectomy is not necessary for calcified end-stage renal allografts [2].