

Parathyroid enlargement at dialysis initiation in patients with chronic kidney diseases.

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The kidney chiefly maintains homeostasis of water, electrolytes, and other solutions. When kidney function is reduced, mineral metabolism is disrupted. Mineral and bone disorder in patients with chronic kidney disease associates with increased cardiovascular risk and mortality; however, management of chronic kidney disease-mineral and bone disorder in predialysis patients remains controversial. This study investigates the association between parathyroid enlargement at dialysis initiation and hyperparathyroidism management in dialysis patients. We enrolled 72 patients at dialysis initiation in this study. Using parathyroid sonography, we categorized patients based on presence (detected group; N = 18) or absence (undetected group; N = 54) of enlarged parathyroid glands and assessed the clinical characteristics and laboratory findings. A literature review of ultrasound evaluations of secondary hyperparathyroidism was conducted. Ultrasonography revealed enlarged parathyroid glands in 18 patients (25%). Serum intact parathyroid hormone levels were high in patients with enlarged parathyroid glands; however, of the 29 patients with intact parathyroid hormone levels <240 pg/mL, four had enlarged parathyroid glands. Eight of the 29 patients with serum phosphorus and calcium levels within the optimal range had enlarged parathyroid glands. Twenty of these 29 patients were followed up at 38 ± 17 months (at least 3 months): enlarged parathyroid glands were detected in 6. During follow-up, serum intact parathyroid hormone levels were significantly higher in the detected group compared with the undetected. In conclusion, enlarged parathyroid glands are frequently detected at dialysis initiation, potentially predicting the persistence of secondary hyperparathyroidism and the need for strict management.

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