

## **Abstract**

We have described 4 patients with chronic renal failure receiving regular haemodialysis treatment who underwent total parathyroidectomy with autotransplantation of parathyroid fragments into the forearm musculature for hypercalcaemic hyperparathyroidism. In all, there was an immediate and profound fall in plasma calcium levels. Hypercalcaemia recurred 1-5 years post-operatively and was resistant to resection of the autograft. In 3 cases, thallium-technetium subtraction scanning and multiple venous sampling for estimation of parathyroid hormone levels suggested multiple sites of hypersecretion of parathyroid hormone in the neck. In 1 case, these investigations revealed a mediastinal adenoma which was successfully removed. These cases reinforce previous suggestions that total parathyroidectomy is frequently incomplete and undermine the procedure of total parathyroidectomy with autotransplantation in patients with persisting uraemia.