A 52-year-old woman with a prior history of haemodialysis and a failed renal transplant was studied for hyperparathyroidism. A SPECT (single-photon emission computed tomography)-CT scan was performed that revealed intense-tracer uptake in the right superior thyroid lobe (Fig. 1), and several extra-thyroid locations, in the sternum, right acromium, proximal third of both humerus bones, and in the middle-third of the 6th and 7th right ribs (Fig. 2), compatible with osteitis fibrosa cystica (brown tumours), although bone metastasis could not be ruled out. Biopsy confirmed brown tumours.

A parathyroidectomy was performed and PTH and calcium levels returned to normal.

At present this presentation of hyperparathyroidism is very uncommon. Diagnosis: Brown tumours secondary to parathyroid adenoma.