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# Post-renal transplant calciphylaxis: treatment of hyperparathyroidism by percutaneous ethanol injection therapy and parathyroidectomy

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## Case

A 50-year-old Asian woman presented with finger calciphylaxis in the fourth and fifth distal fingers with vascular calcification of both hands (Figure 1). The patient had undergone haemodialysis due to diabetes mellitus nephropathy for 8 years and allogeneic kidney transplantation 46 months ago. There was an enlarged parathyroid gland in the right lower thyroid bed. The patient underwent percutaneous ethanol injection therapy (PEIT) because of a risk for worsening of graft function. The patient was followed up for 9 months after PEIT. The iPTH level decreased from 1175 to 155 pg/mL, the calcium level decreased from 11.5 to 10.3 mg/dL, and the serum creatinine increased from 2.0 to 2.2 mg/dL. However, there was no improvement of the necrosis in the fingers after PEIT. The patient was followed up for 17 months after PEIT. The iPTH increased from 155 to 1126 pg/mL and the calcium level increased from 10.3 to 12 mg/dL. There was a new development of necrosis in the second and third distal fingers. A total parathyroidectomy (PTX) with autotransplantation was performed. The serum creatinine level was stable between 1.7 and 2.0 mg/dL 3 months after the PTX.

## Discussion

Hyperparathyroidism is a common problem secondary to renal insufficiency that is often not entirely resolved after renal transplantation. Calciphylaxis associated with hyperparathyroidism, which is not uncommon in the dialysis population, has also been reported in some renal transplant recipients [1,2].

When a PTX is performed, graft function may worsen [3]. PEIT may be recommended as treatment for hyperparathyroidism in renal transplant patients who require a PTX and are at a risk for graft loss [4]. In contrast, there is a report involving graft survival after a PTX, although overall graft survival was not different [5]. In this case, the decreased iPTH 17 months after PEIT increased again. The effect of PEIT did not continue, thus we performed a PTX. The allograft function was stable.

*Conflict of interest statement*. None declared.

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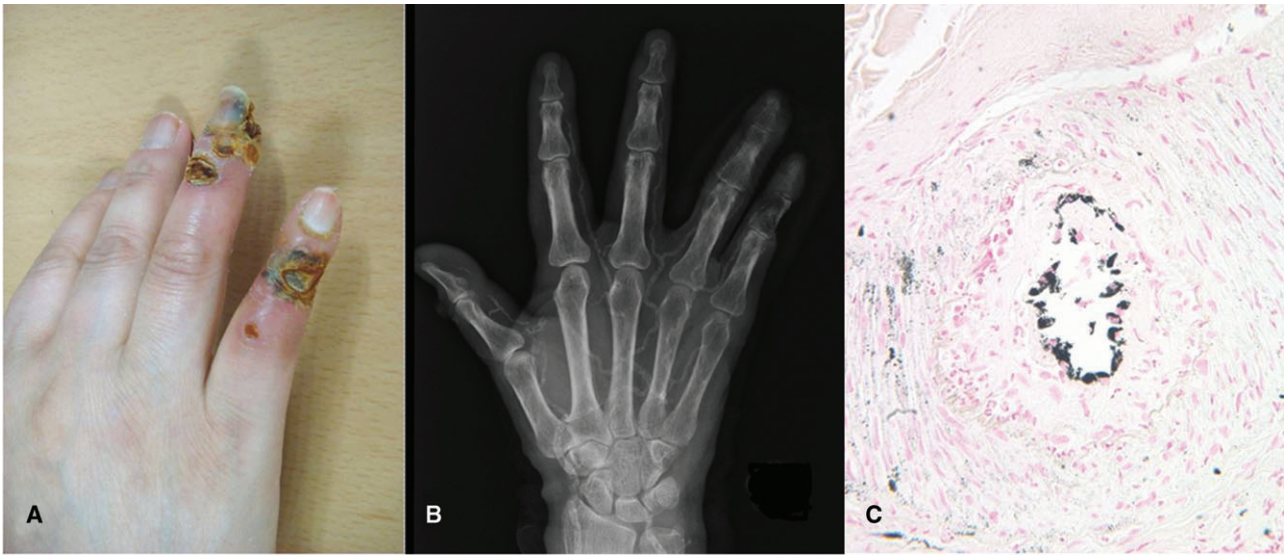


**Fig. 1.** (**A**) Cutaneous lesions with ulceration and ischaemic formation in fingers. (**B**) Hand radiographs showed severely calcified arteries. (**C**) A medium-sized artery shows medial wall calcification with positive black staining for calcium deposits (von Kossa stain).