Metastatic cerebral calcification

A 78-year-old man was referred to the author's emergency department because he had developed hypotension during haemodialysis. On examination, he appeared drowsy without focal neurological deficit. A brain computed tomography scan showed prominent diffuse calcification over the supratentorial hemisphere (*Figure 1*). His family denied trauma or previous stroke history, but he had a history of persistent hypercalcaemia and hyperphosphataemia over the last 3 years (*Figure 2*). A brain computed tomography scan taken 4 years previously did not show any calcification. He was admitted for health care-associated pneumonia with septic shock, and had an uneventful course after intensive care.

The origin of cerebral calcification can be divided into two categories: with or without calcium, phosphate or parathyroid hormone abnormalities. Congenital diseases such as Down syndrome or sporadic Fahr syndrome may be the culprit (Baba et al, 2005), but in this patient it is likely to have been caused by dysregulated calcium–phosphate balance. Dialysate adjustment and sevelamer was instituted. He remained neurologically intact during his admission and several months later after discharge. **BJHM**

Baba Y, Broderick DF, Uitti RJ et al (2005) Heredofamilial brain calcinosis syndrome. *Mayo Clin Proc* **80**: 641–51

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Figure 1. a. Prominent calcification over the right temporal, parietal lobe and left periventricular area is shown, with irregular shape, involving both cortical gray and white matter. b. Calcification over the high frontal area is also shown.

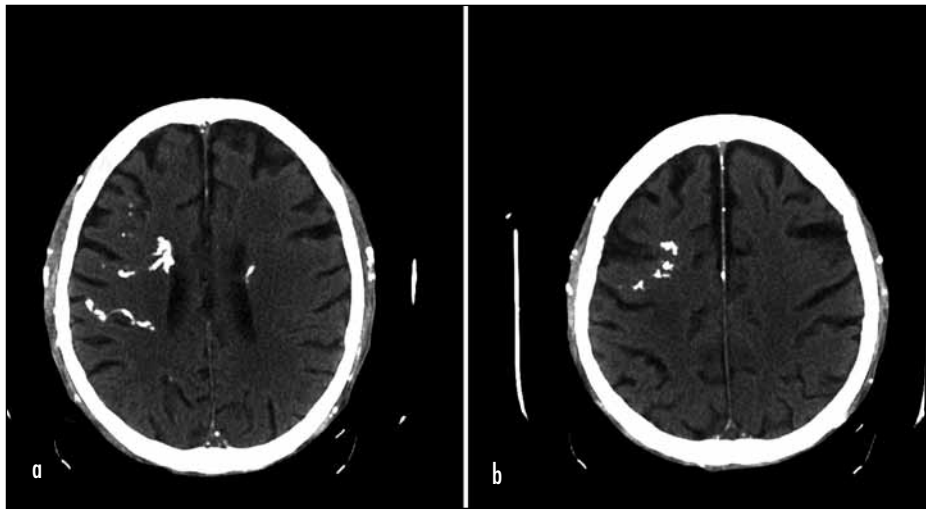

Figure 2. Trend of calcium and phosphate value over 3 years, demonstrating persistently elevated calcium level with fluctuated phosphate status.