Bilateral striopallidodentate calcinosis secondary to postsurgical hypoparathyroidism

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DESCRIPTION

Bilateral striopallidodentate calcinosis (BSPDC) is characterised by calcifications of bilateral basal ganglia and dentate nuclei with or without thalamus, subcortical white matter and cerebellum involvement.¹ A computed tomography (CT) is useful in diagnosing and determining the extent of BSPDC.¹ Here we report a 48-year-old woman presenting to the emergency department with a sudden onset conscious loss followed by general

convulsions. She had undergone a total thyroidectomy for a benign thyroid goitre 20 years ago. A marked decrease in the serum calcium level (4.7 mg/dL) was noted. The diagnoses of hypoparathyroidism and primary hypothyroidism were also confirmed thereafter. A non-contrast head CT (figure 1) revealed symmetric intracranial calcifications, including subcortical white matter, thalami, basal ganglia, caudate nuclei and cerebellums. After the correction of hypocalcaemia with intravenous

Figure 1 Non-contrast head CT showing symmetric calcifications in subcortical white matter (A), thalami (B), basal ganglia (C), dentate nuclei and cerebellums (D).

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calcium gluconate, no more seizures occurred and she was discharged 8 days later with long-term oral calcium, calcitriol and thyroid hormone supplement.

About 1% of patients who receive a total thyroidectomy would have permanent hypoparathyroidism, and measuring serum parathyroid hormone and calcium levels postoperatively is mandatory.² BSPDC, also named as Fahr's disease, may be an inherited disease or secondary to a variety of disorders, such as hypoparathyroidism, hyperparathyroidism, congenital brain anomalies and systemic lupus erythematosus.¹ Among patients with BSPDC, a greater extent of brain calcification indicates a higher probability of having neurological symptoms, of which parkinsonism is the most important presentation.³ Given the irreversibility of BSPDC, hypoparathyroidism should be treated early and a head CT should be considered for patients with neurological symptoms.^{1 3}

Learning points

- ▶ A substantial proportion of patients who receive a thyroidectomy would develop hypoparathyroidism.
- ▶ Bilateral striopallidodentate calcinosis is characterised by calcifications of the bilateral striata, pallida and dentate nuclei with or without other intracranial calcifications.
- ▶ Bilateral striopallidodentate calcinosis may be inherited or secondary to a variety of diseases including parathyroid disorders.

Competing interests None.

Patient consent Obtained.

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