

Calcified White Matter

Morteza Daraei¹

1- Resident, Department of Internal Medicine, Imam Khomeini Hospital, Tehran University of Medical Sciences, Tehran, Iran

Clinical Image

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| Email: mortezadaraie@gmail.com | | |
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Introduction

A 39-year-old woman with four years history of intermittent perioral paresthesia, muscle twitching, and an episode of laryngospasm and generalized tonicclonic seizure, presented with carpopedal spasm. The physical exam was prominent for Trousseau's and Chvostek's sings. Other neurological exam (including cerebellar exam) was normal and there were no evidence of cognitive or extrapyramidal abnormalities.

Laboratory data showed serum total calcium of 6.5 mg/dl (Normal range: 8.6 to 10.2 mg/dl), albumin of 4.5 g/dl (Normal range: 3.5 to 5.2 g/dl), phosphorus of 7.3 mg/dl (Normal range: 2.5 to 4.5 mg/dl), and parathyroid hormone level of 5.2 gg/ml (Normal range: 9 to 94 pg/ml). Thyroid, renal, and liver function tests were all normal.

According to history of seizure, we performed unenhanced brain computed tomography (CT) which showed widespread brain parenchymal calcification including basal ganglia and cerebellum (Figures 1 and 2). In ophthalmologic exam, there was not any sign of cataract.



Figure 1. Unenhanced brain computed tomography (CT) scan which shows diffuse cerebellar calcinosis

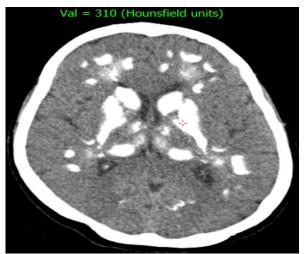


Figure 2. Unenhanced brain computed tomography (CT) scan which shows basal ganglia and subcortical white matter calcification with the Hounsfield level of red cursor area appearing on the top of image

Intracranial calcinosis could be caused by

senile issues, vascular causes (especially atherosclerosis), endocrinopathies especially hormonal disturbance related to parathyroid glands (hypo- or hyper-parathyroidism and pseudohypoparathyroidism), and neoplastic and infectious processes (1).

With the diagnosis of primary hypoparathyroidism, we prescribed her calcium supplements and calcitriol.

Conflict of Interests

Authors have no conflict of interests.

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References

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