Teaching NeuroImages: Fahr syndrome caused by hypoparathyroidism

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Figure Fahr syndrome

Axial (A-C) and sagittal (D) noncontrast head CT demonstrates extensive symmetric bilateral calcifications in the subcortical white matter, basal ganglia, thalami, and dentate nuclei.

A 57-year-old woman with a remote history of thyroidectomy but no prior neurologic symptoms developed seizures, fever, and coma. Limited evaluation at her local hospital in rural Haiti demonstrated serum hypocalcemia (4 mg/dL) and extensive bilateral subcortical calcification in the cerebral and cerebellar hemispheres on CT (figure). This pattern of calcification can occur in inherited conditions such as familial idiopathic basal ganglia calcification (Fahr disease) and acquired conditions (referred to as Fahr syndrome) including parathyroid dysfunction and intrauterine infection.^{1,2} Given our patient's severe hypocalcemia, Fahr syndrome was attributed to presumed hypoparathyroidism related to prior thyroidectomy in her case.

AUTHOR CONTRIBUTIONS

Drs. Saint-Joy, Dade, Haynes, and Berkowitz all participated in drafting and revising the manuscript. Dr. Berkowitz created the figure.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

E. Dade, V. Saint-Joy, and N. Haynes report no disclosures relevant to the manuscript. A. Berkowitz reports no disclosures relevant to the manuscript, but receives royalties from *Clinical Neurology and Neuroanatomy: A Localization-Based Approach* (McGraw-Hill), *Clinical Pathophysiology Made Ridiculously Simple* (Medmaster, Inc.), and *The Improvising Mind* (Oxford University Press). Go to Neurology.org for full disclosures.

REFERENCES

1. Saleem S, Aslam HM, Anwar M, et al. Fahr's syndrome: literature review of current evidence. *Orphanet J Rare Dis* 2013;8:156.
2. Perugula ML, Lippmann S. Fahr's disease or Fahr's syndrome? *Innov Clin Neurosci* 2016;13:45–46.

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Neurology 2017;88:e233

DOI 10.1212/WNL.0000000000004014

This information is current as of June 5, 2017

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