Teaching NeuroImages: CRAO and silent brain infarcts caused by cardiac myxomas in Carney complex

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Figure Fundus photography, brain MRI, chest CT, and genetic testing

(A) Fundus photography shows left central retinal artery occlusion. (B) On diffusion-weighted imaging, there are acute embolic infarctions. (C) Chest CT reveals cardiac myxomas (asterisks) in the bilateral atria and left ventricle. (D) Point mutation in the *PRKARIA* gene.

A 14-year-old girl presented with sudden painless left eye vision loss. Fundus photography showed left central retinal artery occlusion (CRAO) (figure, A). Brain MRI revealed subclinical embolic infarcts (figure, B). Chest CT confirmed multicentric cardiac myxomas (figure, C). Gene testing revealed point mutation in the *PRKARIA* gene (figure, D). Carney complex (CNC) is a rare autosomal dominant, multiple neoplasia syndrome with cardio-cutaneous manifestations. Multiple cardiac myxomas are unusual and strongly related to CNC. Cerebral emboli occur in 34% of patients with cardiac myxomas.¹ The *PRKARIA* gene is located on 17q22-24 and mutated in about 40% of patients with CNC.²

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Appendix 1 Author contributions

Name	Location	Role	Contribution
Li-Ting Huang	National Cheng Kung University Hospital, Tainan, Taiwan	Author	Interpreted images; drafted the manuscript
Yi-Shan Tsai	National Cheng Kung University Hospital, Tainan, Taiwan	Author	Revised the manuscript
Chung-Dann Kan	National Cheng Kung University Hospital, Tainan, Taiwan	Author	Clinical care of the patient; revised the manuscript

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