

Footnotes and Financial Disclosures

Originally received: March 28, 2017.

Final revision: July 21, 2017.

Accepted: August 30, 2017.

Available online: October 27, 2017. Manuscript no. 2017-714.

¹ Department of Ophthalmology, University of Bonn, Bonn, Germany.

² Department of Ophthalmology and Westmead Institute for Medical Research, University of Sydney, Sydney, Australia.

³ Vitreous Retina Macula Consultants of New York, New York, New York.

⁴ Department of Ophthalmology, New York University School of Medicine, New York, New York.

⁵ Doheny Eye Institute, Los Angeles, California.

⁶ University of California at Los Angeles, Los Angeles, California.

⁷ F. Hoffmann-La Roche Ltd., Basel, Switzerland.

⁸ Genentech, Inc., South San Francisco, California.

Financial Disclosure(s):

The author(s) have made the following disclosure(s): M.F.: Personal fees – Bayer, Heidelberg Engineering, Novartis, Genentech/Roche; Patent US20140303013 A1 pending; Research grant – German Research Foundation (DFG): FL 658/4-1 and FL 658/4-2.

P.M.: Consultant – Abbott, Allergan, Bayer, Novartis, Roche.

K.B.F.: Consultant – Genentech, Optos, Optovue, Heidelberg Engineering, Bayer HealthCare.

F.G.H.: Consulting fees – Acucela, Allergan, Bayer, GSK, Heidelberg Engineering, Novartis, Genentech/Roche.

S.S.: Consultant – Genentech, Inc., Allergan, Alcon, Regeneron Pharmaceuticals, Inc., F. Hoffmann-La Roche Ltd., Carl Zeiss Meditec, Inc., Optos plc; Research support – Genentech, Inc., Allergan, Carl Zeiss Meditec, Inc., Optos plc.

C.B., E.C.H., and D.F.: Employees – Genentech, Inc.

D.F.: Stock/stock options – F. Hoffmann-La Roche Ltd.

The Department of Ophthalmology at the University of Bonn has received nonfinancial support through the supply of technical equipment by several imaging device manufacturers, including Heidelberg Engineering, Optos, and Zeiss Meditec. The Department of Ophthalmology at the University of Bonn has received research grants from Acucela, Alcon, Allergan, Bayer, Formycon, Genentech, Novartis, and Roche.

HUMAN SUBJECTS: This study does not include human subjects. Fundus images presented here have been obtained in the “Directional Spread in Geographic Atrophy (DSGA)-Study” (ClinicalTrials.gov Identifier: NCT02051998). This study obtained institutional review board approval from the University of Bonn and adheres to the Declaration of Helsinki.

Author Contributions:

Research design: Fleckenstein, Satta, Holz, Brittain, Henry, Ferrara

Data acquisition and/or research execution: Fleckenstein, Mitchell, Satta, Holz, Brittain

Data analysis and/or interpretation: Fleckenstein, Mitchell, Freund, Satta, Holz, Brittain, Henry, Ferrara

Manuscript preparation: Fleckenstein, Mitchell, Freund, Satta, Holz, Brittain, Henry, Ferrara

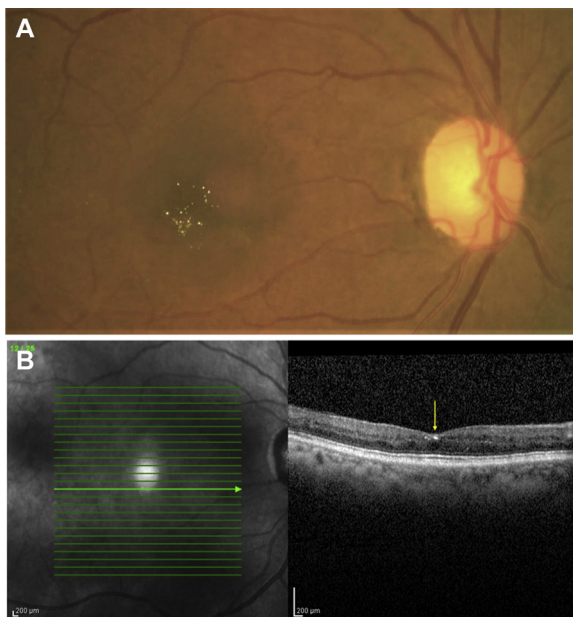
Abbreviations and Acronyms:

AMD = age-related macular degeneration; **AREDS** = Age-Related Eye Disease Study; **BCVA** = best-corrected visual acuity; **CFP** = color fundus photography; **DA** = disc area; **FA** = fluorescein angiography; **FAF** = fundus autofluorescence; **FAM** = Fundus Autofluorescence in Age-related Macular Degeneration; **GA** = geographic atrophy; **GACI** = Geographic Atrophy Circularity Index; **ICD** = International Classification of Diseases; **LLVA** = low-luminance visual acuity; **NIR** = near-infrared reflectance; **RPE** = retinal pigment epithelium; **VA** = visual acuity.

Correspondence:

Monika Fleckenstein, MD, Department of Ophthalmology, University of Bonn, Ernst-Abbe-Str 2, 53127 Bonn, Germany. E-mail: Monika.Fleckenstein@ukb.uni-bonn.de.

Pictures & Perspectives



West African Crystalline Maculopathy in a Nigerian Woman

A 56-year-old asymptomatic Nigerian woman with diabetes and no known family history of ocular disease presented for routine ocular examination and was found to have yellow highly-refractile crystals clustered in bilateral foveas (Fig 1A; left eye not shown, but similar in appearance). She had no exogenous risk factors for crystalline retinopathy, such as use of cathaxanthine or tamoxifen. OCT through crystals revealed hyperreflective foci (*arrow*) in the inner retinal layers (Fig 1B). These findings are consistent with a diagnosis of West African crystalline maculopathy, a condition first reported by Sarraf et al (Sarraf D, Ceron O, Rasheed K, et al. West African crystalline maculopathy. *Arch Ophthalmol*. 2003;121:338-342.) in 6 patients from the Igbo tribe of Southeast Nigeria. Kola nuts, genetics, and retinal vascular disease have been proposed as potential causes of this maculopathy, but its definitive etiology remains unclear. (Magnified version of Fig 1A-B is available online at www.aaojournal.org.)

CHRISTINA Y. WENG, MD, MBA

JOSEPH F. MORALES, CRA, COA

ISHA GUPTA, MD

Department of Ophthalmology-Cullen Eye Institute, Baylor College of Medicine, Houston, Texas