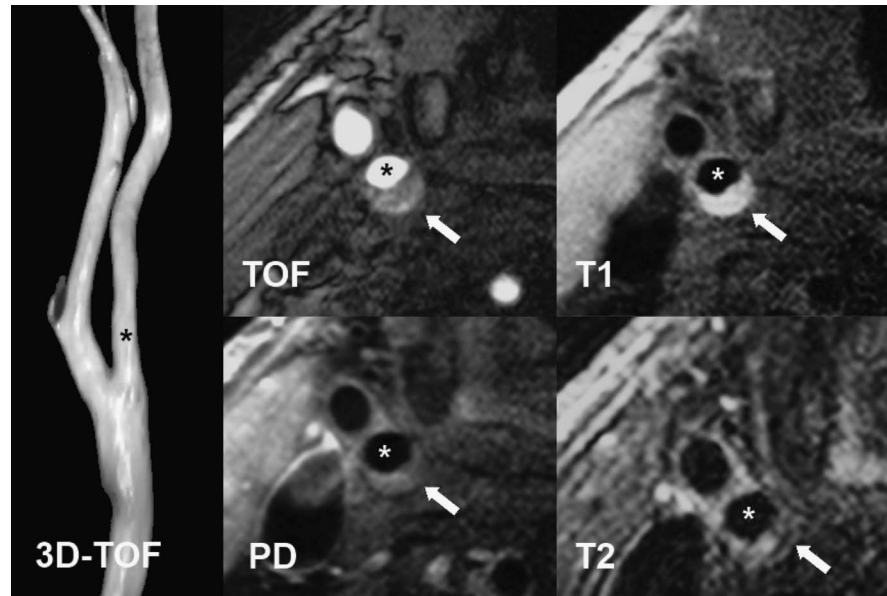


Serial carotid MRI identifies rupture of a vulnerable plaque resulting in amaurosis fugax

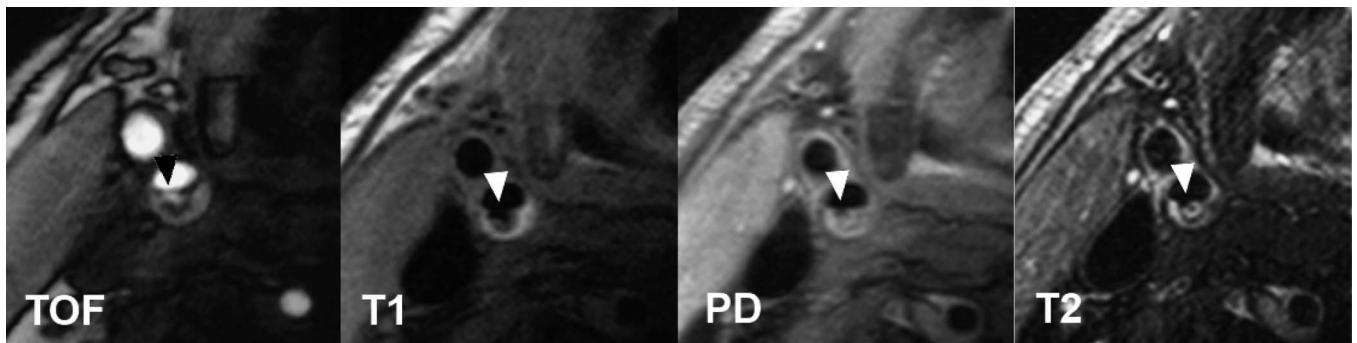
Figure 1 Baseline high-resolution carotid MRI after cryptogenic stroke



Baseline carotid MRI demonstrating a complicated American Heart Association type-VI plaque of the right internal carotid artery (*). High signal on time-of-flight (TOF) and T1-weighted images (arrow) corresponding to intraplaque hemorrhage within a large lipid/necrotic core. PD = proton density; 3D = 3-dimensional.

A 66-year-old man with cryptogenic ischemic stroke and multiple acute ischemic lesions in the right middle cerebral artery territory was enrolled in the CAPIAS trial (Carotid Plaque Imaging in Acute Stroke; NCT01284933). Baseline carotid MRI demonstrated a right-sided nonstenotic American Heart Association type-VI plaque with a large lipid/necrotic core and intraplaque hemorrhage (figure 1). Eleven months later, the patient presented again after an episode of right eye amaurosis fugax. Repeat carotid MRI revealed a new ulceration on the right side with large parts of the former lipid/necrotic core missing (figure 2). We hypothesize that plaque rupture had caused embolization into the right retinal artery.

Figure 2 Repeat carotid MRI after an episode of amaurosis fugax (11 months later)



At repeat MRI, this plaque showed profound superficial irregularities, with a new ulceration and parts of the former lipid/necrotic core missing (arrowhead). PD = proton density; TOF = time of flight.

Florian Schwarz, MD, Anna Bayer-Karpinska, MD, Holger Poppert, MD, Martin Buchholz, Clemens Cyran, MD, Jochen Grimm, MD, Andreas Helck, MD, Konstantin Nikolaou, MD, Christian Opherk, MD, Martin Dichgans, MD, Tobias Saam, MD

From the Institute for Clinical Radiology (F.S., M.B., C.C., J.G., A.H., K.N., T.S.), Institute for Stroke and Dementia Research (A.B.K., C.O., M.D.), and Department of Neurology (C.O., M.D.), Ludwig-Maximilians-University Hospital Munich; and Department of Neurology (H.P.), Technical University Munich, Germany.

Author contributions: Florian Schwarz: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, contribution of vital reagents/tools/patients, acquisition of data. Anna Bayer-Karpinska: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, acquisition of data. Holger Poppert: drafting/revising the manuscript. Martin Buchholz: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Clemens Cyran: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, acquisition of data, study supervision. Jochen Grimm: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Andreas Helck: analysis or interpretation of data, acquisition of data. Konstantin Nikolaou: drafting/revising the manuscript, study concept or design, study supervision. Christian Opherk: analysis or interpretation of data, acquisition of data, study supervision. Martin Dichgans: drafting/revising the manuscript, analysis or interpretation of data, acquisition of data. Tobias Saam: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, acquisition of data, study supervision.

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Correspondence to Dr. Saam: Tobias.Saam@med.lmu.de

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