

Images in Clinical Tropical Medicine

Severe Retinal Whitening in an Adult with Cerebral Malaria

Richard J. Maude,* Mahtab Uddin Hassan, and Nicholas A. V. Beare

Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand; Centre for Clinical Vaccinology and Tropical Medicine, Nuffield Department of Clinical Medicine, John Radcliffe Hospital, Oxford, United Kingdom; Chittagong Medical College, Chittagong, Bangladesh; St. Paul's Eye Unit, Royal Liverpool University Hospital, Liverpool, United Kingdom

A composite digital photograph of the right retina of a 24-year-old Bangladeshi man with non-fatal cerebral malaria was taken on admission to hospital (Figure 1). He presented with 1 day of unconsciousness, pulmonary edema, and black-water fever. Peripheral blood parasitemia was 79 *Plasmodium falciparum* per 1,000 red cells and hemoglobin was 10.9 g/dL. He recovered consciousness within 48 hours of starting intravenous artesunate and was discharged home after 6 days. Visual function and neurologic examination were normal on discharge.

The image is comprised of 14 separate photographs taken with a Genesis D (Kowa, Japan) handheld retinal camera. It shows severe malarial retinopathy with small patches of retinal whitening involving the entire macula and extensive areas of the peripheral retina, in particular temporal to the central fovea and nasal to the optic nerve head (some glare is present



FIGURE 1. Composite digital photograph of the right retina of a 24-year-old man with cerebral malaria and severe malarial retinopathy. This figure appears in color at www.ajtmh.org.

along the temporal vascular arcades). Malarial retinal whitening has a distribution that is unique to malaria¹ and is present in 50% of children with cerebral malaria.¹ In adults, it has previously only been described in two Malawians with cerebral malaria, both of whom had mild changes.²

The handheld retinal camera can be used at the bedside and, unlike conventional retinal photography with a table-top camera, does not require a cooperative, sitting patient.

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Authors' addresses: Richard J. Maude, Mahidol-Oxford Tropical Medicine Research Unit, Faculty of Tropical Medicine, Mahidol University, 3/F, 60th Anniversary Chalermprakit Building, 420/6 Rajvithi Road, Rajthevee, Bangkok 10400, Thailand, E-mail: richardmaude@gmail.com or richard@tropmedres.ac. Mahtab Uddin Hassan, Department of Medicine, Chittagong Medical College Hospital, Chittagong, Bangladesh, E-mail: mahtabnipu@yahoo.com. Nicholas A. V. Beare, St. Paul's Eye Unit, Royal Liverpool University Hospital, Prescot Street, Liverpool, L7 8XP, UK, E-mail: nbeare@btinternet.com.

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*Address correspondence to Richard J. Maude, Mahidol-Oxford Tropical Medicine Research Unit, Faculty of Tropical Medicine, Mahidol University, 3/F, 60th Anniversary Chalermprakit Building, 420/6 Rajvithi Road, Rajthevee, Bangkok 10400, Thailand. E-mail: richardmaude@gmail.com or richard@tropmedres.ac