

Ultra-widefield imaging of retinal hemorrhages induced by scleral depression

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An infant born at 24-weeks gestation weighing 750 grams underwent examination with indirect ophthalmoscopy and scleral indentation for retinopathy of prematurity (ROP) at 14 weeks post-natal age. A second examiner noted widespread retinal hemorrhages. Ultra-widefield non-contact retinal imaging and fundus fluorescein angiography (0.1mL/kg of 10% fluorescein) was performed (Optos PLC, Dunfermline, Scotland, UK) using the “flying baby position”).^{1,2}

The infant was systemically well. Full blood count, coagulation studies, sickle cell screen, blood cultures, echocardiography, cerebral and abdominal ultrasonography were unremarkable. At 1 week, the superficial retinal hemorrhages had resolved. Plus disease developed in the right eye and bilateral laser photocoagulation was undertaken.

Intraretinal hemorrhages induced by scleral depression (during examination, contact imaging, or laser photocoagulation) have been reported in infants with active ROP.³⁻⁶ Here we demonstrate its occurrence in the absence of active ROP, excluded on fundus fluorescein angiography.

Figure 1. Ultra-widefield imaging of retinal hemorrhages induced by scleral depression.

Images captured of right eye 45 minutes after scleral indentation. **(A)** Colour image demonstrates superficial retinal hemorrhages clustered adjacent to the vascular arcades (black arrowheads) with more extensive hemorrhages at the ridge (white arrowheads). **(B)** Fundus angiography excludes active ROP.

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