Figures: Severe macular neuroretinal atrophy in an infant with microcephaly

The Brazilian Ministry of Health confirmed the relation between ZIKV and microcephaly, and WHO issued an epidemiological alert about the association of ZIKV infection and congenital malformations and neurological syndromes. Here we report ophthalmic findings in three children with microcephaly born after the ZIKV outbreak in Brazil. These infants (see appendix for details) had cerebral calcifications detected by CT scans and presumable intrauterus ZIKV infection. One of the mothers reported rash and arthralgia in the first trimester. Toxoplasmosis, rubella, cytomegalovirus, herpes simplex, syphilis, and HIV were ruled out in all cases (mothers and infants), fulfilling the Ministry of Health’s criteria for ZIKV vertical infection.

 Mothers and infants underwent ocular examination that included biomicroscopy and fundus examination. The mothers had no ocular lesions. The three infants had unilateral ocular findings involving solely the macular region. All three infants presented with gross macular pigment mottling and foveal reflex loss. A well defined macular neuroretinal atrophy was detected in one child (figure). To our knowledge, this is the first report of ocular findings in infants with microcephaly born after the ZIKV outbreak. All three children had fundoscopic alterations in the macular region. Although ZIKV infection was not tested by real-time PCR, cases fulfil criteria for ZIKV vertical infection. Further studies are being conducted in a larger group of infants to assess the ocular manifestations of ZIKV vertical infection.

We declare no competing interests.

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Davidson AJ, Dima N, de Grant J, et al. Neurodevelopmental outcomes at 2 years of age after general anaesthesia and awake-regional anaesthesia in infancy (GAS): an international multicentre, randomised controlled trial. Lancet 2015; 387: 239–30—In this Article, the affiliation for Liam Dorris was incorrect. This correction has been made to the online version as of Jan 14, 2016, and the printed Article is correct.