Optical coherence tomography in congenital Zika syndrome

Tomografia de coerência óptica na síndrome congênita de Zika

Dear Editor:

I read with interest the article by Campos et al.[1] on optical coherence tomography (OCT) findings in congenital Zika virus infection or congenital Zika syndrome (CZS). Six months after the onset of a Zika virus outbreak, there was an unusual 20-fold increase in microcephaly cases in newborns in Brazil[2]. Ventura et al.[2] were the first to report ocular involvement in CZS in the form of loss of foveal reflex and macular pigmentary mottling in three infants. One infant also had a well-defined patch of retinal atrophy at the macula[2]. In another report[3], Ventura et al. studied 10 involved infants. The clinical features were a normal anterior segment or axial length, nystagmus (one patient), exophoria (40% patients), esophoria (20% patients), myopia (40% patients), and optic nerve/macular abnormality (75% eyes). Optic-nerve abnormalities (45% eyes) included optic-nerve hypoplasia, pale disk, and increased cup-to-disk ratio. Macular abnormalities (75% eyes) were pigmentary mottling or macular atrophy[3]. Campos et al.[1] reported outer retinal thinning, loss of the ellipsoid zone (EZ), increased reflectivity of the retinal pigment epithelium (RPE), and increased penetration of the OCT into the deep choroid in a 1-month-old child with CZS. Recently, Ventura et al.[4] reported OCT features of nine eyes with CZV. The findings included loss of EZ and hyperreflectivity of RPE (100%), retinal thinning (89%), choroidal thinning (78%), and colobomatous excavation (44%)[4]. Very recently, OCT findings of two infants with CZS have been reported[5]. OCT in one infant was normal despite macular pigmentary mottling. However, the reported OCT scan did not pass through the fovea and may not reflect the exact changes at the foveal center. The other infant had chorioretinal atrophy with excavation in both eyes, and OCT of the right eye showed a colobomatous depression and chorioretinal atrophy. However, as Campos et al.[1] have stressed, it is important to note that such findings are not unique to CZV and may also be seen with other congenital infections, including cytomegalovirus, West Nile virus, and *Toxoplasma gondii*. Because visually important anatomical structures, including the optic disk and macula, are involved, the long-term visual outcomes in CZS remain to be explored.

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