Myopia in Retinopathy of Prematurity

Myopia is a common sequelae of premature infants with or without retinopathy of prematurity. It correlates highly with increasing severity of retinopathy of prematurity. Early and frequent cycloplegic refractions are essential in children with retinopathy of prematurity to detect myopia that will require treatment.

In this issue, Beri et al. have described a possible mechanism to explain the development of myopia in infants with retinopathy of prematurity. Their observations indicate that the main factor causing myopia in infants with retinopathy of prematurity is an increased lens thickness. This is a different mechanism from the development of myopia in preterm infants without retinopathy of prematurity, where the main factor appears to be increased axial length.

Postnatal emmetropization is influenced by the lens thickness and power, which appears to be directly affected by the presence of retinopathy of prematurity. It is interesting that both the peripheral retina and the lens zonules are derived embryologically from neuroectoderm. If retinopathy of prematurity does directly interfere with normal postnatal reduction of lens thickness and power, then perhaps further research could delineate methods of reducing myopia occurring with retinopathy of prematurity.

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