Editorial

Fundus Fluorescein Angiography in Retinopathy of Prematurity

In this issue of the *Journal of Pediatric Ophthalmology & Strabismus*, Ng, Lanigan, and O’Keefe present their findings regarding fundus fluorescein angiography in the management and screening of retinopathy of prematurity (ROP). Recently, there has been interest in photographic documentation of ROP in hospitals lacking sufficient ophthalmologic staff. Images created in the intensive care nursery could be analyzed through telemedicine at remote centers and a therapeutic decision reached.

In this study, at each screening session, RetCam (Massie Research Laboratories, Inc., Pleasanton, CA) color fundus images of both eyes were first obtained. On the basis of these color images, the eye with a less mature retina or more severe ROP was chosen for a complete fundus fluorescein angiography study. The same RetCam with a blue excitation light source and yellow–green, barrier-filtered camera was used to perform the angiography.

The authors found that fundus fluorescein angiography provided superior visualization of the peripheral vasculature compared with indirect ophthalmoscopy. Their technique was not labor- or time-intensive and produced striking and useful images. They concluded that fundus fluorescein angiography delineates staging and zone better than current diagnostic techniques do. Perhaps more importantly, fundus fluorescein angiography showed variations within each stage of ROP and may show a constellation of early signs among patients whose conditions would later progress to severe disease.

All of us have encountered patients in whom the decision to treat is difficult, and we would welcome an instrument to predict progression. This technique may eventually prove useful in correlating the pathology with the clinical findings of ROP, which will lead to a better understanding of the pathophysiology. It may not be time to trade in our indirect ophthalmoscopes for a retinal imaging system, but the authors’ conclusions are stimulating. As the authors suggest, fundus fluorescein angiography probably will not change the management of mild to moderate ROP, for which indirect ophthalmoscopy provides reliable screening. However, fundus fluorescein angiography may have a potential to predict progression of severe ROP earlier.

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Editor