



Photoscreening in Children with a New App: Multicentric experience

Abstract Id:	30049211
Topic:	PEDIATRIC OPHTH, STRABISMUS Amblyopia
Abstract Body:	<p>Purpose: The presence of red pupillary reflex, with central fixation is an indirect sign of healthy vision. Smartphones and cameras have inbuilt red reflex blocking. MDEyeCare, is a new app available for iOS that is designed to view the red pupillary reflex in non-dilated children</p> <p>Methods: In this pilot study, 257 children were screened with the new app and results were compared to dilated ophthalmic exam with cycloplegic retinoscopy.</p> <p>Results: The average age was 6.5 years (3 months - 12 years) and 56% were males. There were 25% whites, 20% blacks, 50% Hispanics, 3.5% Asians and 1.5% mixed race. The app diagnosed amblyogenic refractive error in 91% of patients and detected abnormal fundus finding in 6/7 patients (diffuse choroidal hemangioma was not detected by the app)</p> <p>Conclusion: Photoscreening with the new app, has a good correlation especially in white and hispanic patients. For patients with darker pigmentation the app needs to be optimized and larger studies to determine sensitivity is required.</p>
Financial Interest:	Yes
Industry Employed:	No
Study Design:	Cross-sectional Study
Approved by IRB:	Yes

Précis:

MDEyeCare, an app available for iOS is a simple to use tool for non-ophthalmologists and detected amblyogenic refractive errors in 91% patients, detected leukocoria in all patients including 4 patients with retinoblastoma and 2 patients with Coats disease.

Background Statement:

Screening for childhood blindness relies on examining the red reflex. This app was designed to detect leukocoria and amblyogenic refractive error.

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Other Information

Is the Presenting Author of this submission in a residency program (formal training) or subspecialty training for ophthalmology?

Yes

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Yes