Analyzing Risk Factors for Amblyopia

Nearly a decade ago, the American Association for Pediatric Ophthalmology and Strabismus (AAPOS) presented a set of risk factors for amblyopia. The intent was to promote uniformity of reporting and to assist industry and investigators to set referral cut-offs. This would allow for uniform validation comparisons between various commercially available screening devices. Because the prevalence of these risk factors is not yet known, Dr. Robert Arnold performed a meta-analysis using the results of some of the major published pediatric comprehensive eye examination studies. His findings are published in this issue. Dr. Arnold postulates that once the prevalence of these risk factors is known, validating future vision screening devices would be simpler and much less expensive. As an example, not all “non-referred” subjects would require a comprehensive eye examination to be able to estimate sensitivity and specificity.

From his analysis of the data he found, the approximate prevalence of anisometropia is 1.2%, hyperopia is 6%, astigmatism is 15%, myopia is 0.6%, strabismus is 2.5%, and visual acuity less than 20/40 is 6%. The mean combined prevalence is 21% ± 2% compared to a prevalence of amblyopia 20/40 and worse of 2.5%. Dr. Arnold makes a persuasive case why amblyopia screening with risk factor sensitivity less than 100% is expected and desirable.

On another subject, June 3, 2013, was designated the first “World Orthoptic Day.” This event will be celebrated each year on the first Monday of June to heighten the visibility of the orthoptic profession and to promote the activities of orthoptists locally, nationally, and internationally. I have the pleasure of working with orthoptists in my clinic and have developed a great appreciation for what they can do, particularly for some of my most difficult adult strabismus patients. Don’t forget to thank the orthoptists you know and consider encouraging people you might recognize as good candidates to pursue training as an orthoptist, because the demand exceeds the supply of these eye care professionals. For more information, please visit the American Association of Certified Orthoptists website (http://www.orthoptics.org), Facebook page, Twitter page, or LinkedIn page.

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