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50 Years Ago in *The Journal of Pediatrics*

Amblyopia Screening: An Update

Giles CL. Detection of amblyopia in the preschool child. J Pediatr 1970;77:309-10.

Nowadays, amblyopia is a treatable condition yet still is one of the leading causes of monocular visual disability, affecting 2%-5% of children.[1] Thanks to high-quality evidence from randomized trials, we know that adequate early treatment (patching and/or atropine penalization) results in better visual outcomes and improves the prognosis. Visual screening plays a critical role in the identification and treatment of preschool children with visual impairment.

Fifty years ago, Dr Giles recognized the need for better screening methods for early detection of amblyopia. At that time, the use of the "Illiterate E" modified Snellen chart was routine. However, this chart posed difficulties, such as the time and effort needed to teach children how to use it. Dr Giles proposed a magnified version to the Allen test, putting the optotypes in the waiting room so that the patient could be familiarized with the figures before the examination.

We now know that the Allen chart is not the best method to screen and follow visual acuity because it is not uniform in optotype size and does not follow a logarithmic scale. The American Academy of Ophthalmology, American Association of Pediatric Ophthalmology and Strabismus, and The US Preventive Services Task Force recommend screening using new visual acuity tests such as LEA and HOTV charts, which use figures and letters for easier and more accurate testing in preliterate children. The importance of these tests is their reproducibility and reliability.[1]

New technologies to screen children and those with different abilities have emerged. Cameras (Plusoptix, I-Screen), refractometers (Retinomax), and even smartphone applications have been efficacious in detecting amblyopia and risk factors such as ametropias and strabismus. These technologies have changed the landscape of screening. Although they offer new solutions for preschool children who struggle with the standard HOTV or LEA charts, these tests will continue to evolve.

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