



March 2018 Update

Picturing AMD

Is this really what you see?



For several years, the National Institutes of Health (NIH) has provided images that depict the visual disturbances of various eye diseases. The image of two children in a playground, whose faces are obscured by a gray blot, is associated with age-related macular degeneration (AMD) and is well-known to patients and eye care professionals alike.

Accurate images are important education tools so that people can seek help when they experience similar symptoms. These pictures also help family members and the public appreciate the challenges affected individuals face.

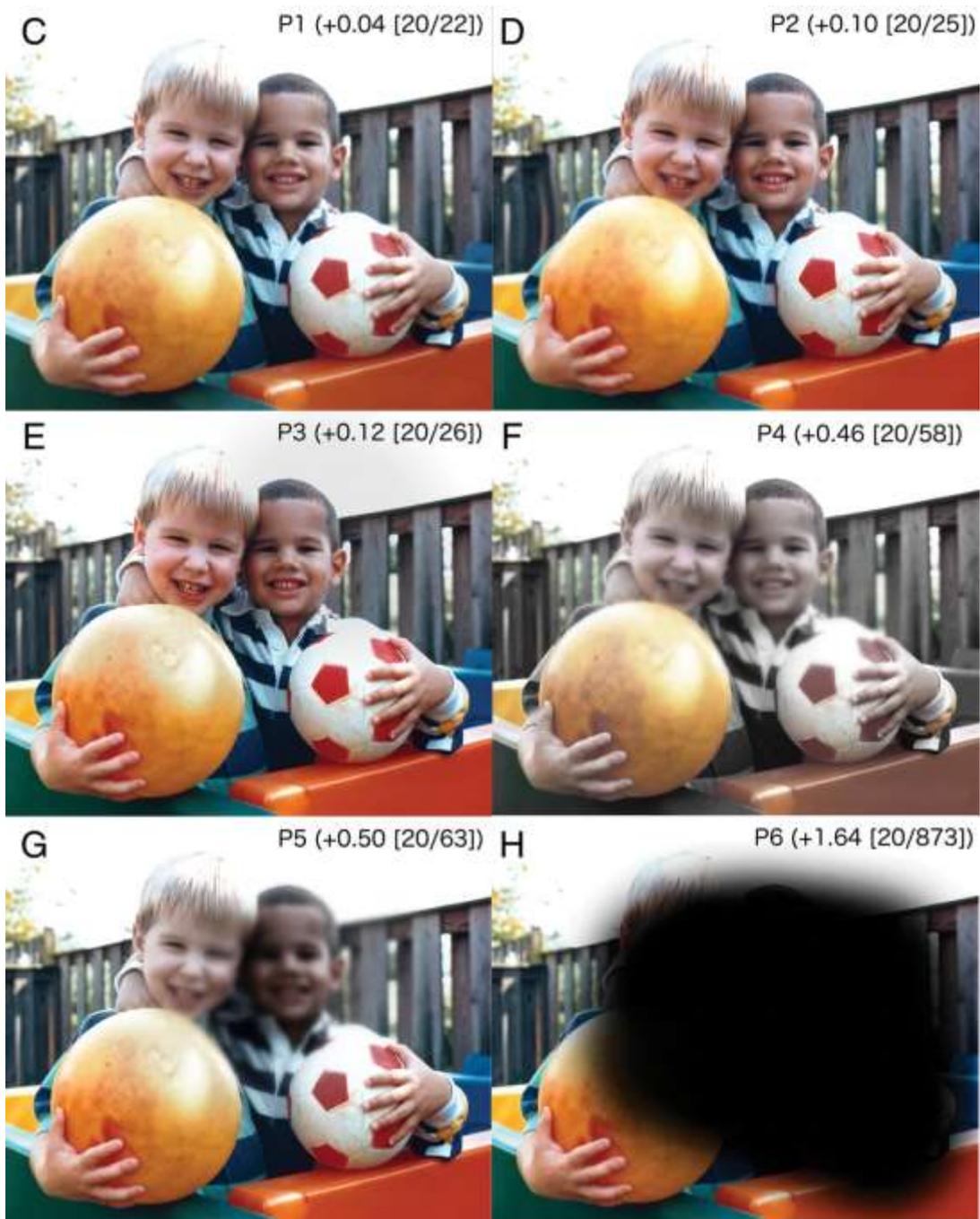
Researchers recruited six patients (two women) between the ages of 65 and 82. All had AMD in one eye, but normal vision in their other eye. Five had wet AMD and were receiving anti-VEGF injections. The sixth subject had dry AMD, and had been previously diagnosed with a large scotoma resulting from geographic atrophy. The subjects were asked to fixate with their good eye on a photo, and then look at the same photo with only their AMD-affected eye. They described the picture to a digital artist who made changes in the image according to their description of what they saw with their AMD-affected eye. Each study subject switched back and forth between eyes until the image was manipulated to reflect what was seen using their AMD-affected eye. (P1 – P6 identify the study subjects)



Original



P5



The images were modified by contrast reduction (darkness), color desaturation (loss of color), distortion (wavy lines), or blur. In the case of the patient with the scotoma (P6), the affected area resulted in a central black patch, but the area outside the geographic atrophy had relatively clear, not blurry, vision.

Surprisingly, none of the six participants reported a central gray patch, with blurring outside of the central area, like the image long promoted by the NIH.

How would you describe what you see?

(1) Denniss J, Astle AT, *Modified images reflecting effects of age-related macular degeneration on perception of everyday scenes*, Clin Exp Optometry, epub ahead of print, 2018.