In This Issue

JAMA Ophthalmology

Research

Monocular Trial of Intraocular Pressure-Lowering Medication 742
King and Rotchford investigate the validity of the monocular trial in patients commencing topical glaucoma treatment at different time points in a prospective cohort study of untreated patients with open-angle glaucoma or ocular hypertension. Of 30 individuals, the unadjusted intraocular pressure (IOP)-lowering effect overestimated the true therapeutic effect by a mean (SD) of 2.5 (4.8), 3.1 (3.8), and 4.9 (4.4) mm Hg at 8 am, 11 am, and 4 pm, respectively, and the mean adjusted IOP-lowering effect was almost identical to the true therapeutic effect at each of the 3 time points. The correlation between the unadjusted effect of treatment and the true therapeutic effect was 0.55, and the effect when adjusted by the monocular trial was 0.72. This study supports the monocular trial of therapy as an effective accurate predictor of response of an untreated eye to monotherapy with a prostaglandin analogue at all daytime time points measured.

Subconcussive Head Impact and Ocular-Motor Function 763
To investigate a potential relationship between subconcussive head impacts and near point of convergence (NPC) ocular-motor function for delineating traumatic brain injury, Kawata and coauthors investigate repetitive subconcussive head impacts during preseason football practice within a prospective, observational study of 29 college football players. An accelerometer-embedded mouthguard measured head impact kinematics. The trajectory and cumulative burden of subconcussive impacts on NPC differed by group. Only in the higher-impact group was there a linear increase in NPC over time that plateaued and resolved by postseason follow-up. No group differences were observed postseason follow-up. Although asymptomatic, these data suggest that repetitive subconcussive head impacts were associated with changes in NPC.

Visual Impairment and Blindness in Chinese American Adults 785
In a population-based cross-sectional study of 10 US Census tracts in the city of Monterey Park, California, conducted by Varma and colleagues, the prevalence of presenting visual impairment (VI) was 3.0% among 4582 Chinese American adults 50 years and older, with 60.0% of this prevalence being attributed to uncorrected refractive error. The overall age-adjusted prevalence for VI was 1.2% and for blindness was 0.07%. The prevalence of blindness was lower than that noted in other US or non-US studies and myopic retinopathy was a frequent cause of VI and blindness in Chinese Americans that has not been commonly observed in other racial/ethnic groups.

Visual Impairment and Blindness in US Adults 802
Investigators from California and Chicago determine the demographic and geographic variations in vision impairment (VI) and blindness in adults in the US population in 2015 and estimate the projected prevalence through 2050. In 2015, a total of 1.02 million people were blind, and approximately 3.22 million people had VI, whereas up to 8.2 million people had VI due to uncorrected refractive error. Varma and coauthors found that by 2050, the numbers of these conditions are projected to double to approximately 2.01 million people with blindness, 6.95 million people with VI, and 16.4 million with VI due to uncorrected refractive error. The highest numbers of these conditions in 2015 were among non-Hispanic white individuals (2.28 million), women (1.84 million), and older adults (1.61 million), and these groups will remain the most affected through 2050. However, African American individuals experience the highest prevalence of VI and blindness.

Opinion

Viewpoint
727 The Fellow and the Professor Revisited
JT Rosenbaum

Clinical Review & Education

JAMA Ophthalmology
Clinical Challenge

835 What would you do next?

849 Correction

Online @ jamaophthalmology.com

VIDEO Patient Identifies Monetary Bill from Evaluation of a Portable Artificial Vision Device Among Patients With Low Vision
E Moisseiev and MJ Mannis

Departments
726 Staff Listing
742, 802 CME Articles
850 Classified Advertising
850 Journal Advertiser Index
851 Contact Information
852 CME Questions

Instructions for Authors

jamaophthalmology.com
Continuing Medical Education jamanetworkcme.com