Cadmium and Lead Exposure and CS Impairment

Paulsen and coauthors investigated the association of blood cadmium and lead levels with the 10-year incidence of contrast sensitivity (CS) impairment in a cohort of middle-aged adults. In a longitudinal cohort study of 1983 adults, exposure to cadmium, but not lead, and smoking were associated with increased risk for CS impairment in the 10-year follow-up. The authors suggest that reducing exposure to cadmium, smoking, or both may reduce the burden of CS impairment in middle-aged adults.

Invited Commentary

Association of Acute Endophthalmitis With IVTs

Baudin and coauthors report a population-based study that included 254,927 patients receiving intravitreous injections (IVTs). The risk of endophthalmitis was higher for patients who received corticosteroid injections than for those who received antivascular endothelial growth factor agents (incidence rate ratio, 3.21) and higher for those who received nonprefilled syringes of antivascular endothelial growth factor medications than prefilled syringes (incidence rate ratios, 1.63 for ranibizumab and 1.82 for aflibercept). Although an association cannot indicate cause and effect, these data suggest the use of prefilled antivascular endothelial growth factor syringes might lower the already very low risk of acute endophthalmitis.

Incidence and Early Course of Retinopathy of Prematurity

The current guidelines for retinopathy of prematurity (ROP) detection programs in the United States include a range of birth weights and gestational ages that may result in examinations of many premature infants who are at low risk for developing serious retinopathy. To provide data that might contribute to refinements of these guidelines, Quinn and coauthors for the G-ROP Study Group determined the incidence and early course of ROP in a large cohort representative of infants undergoing ROP screening. In a secondary analysis of 7483 premature infants who underwent ROP examinations at multiple centers and were evaluated retrospectively, 3224 (43.1%) developed ROP, including 459 (6.1%) with type 1 and 472 (6.3%) with type 2 ROP, and 514 infants (6.9%) underwent treatment in 1 or both eyes. These data suggest that among all premature infants undergoing ROP screening examinations, approximately 12.5% develop severe ROP, occurring almost exclusively among infants of with a birth weight of less than 1251 g.

Ranibizumab Plus L-CRA vs Ranibizumab Monotherapy

McAllister and coauthors report a randomized clinical trial evaluating the addition of a laser-induced chorioretinal anastomosis (L-CRA) to intravitreal ranibizumab treatment for a central retinal vein occlusion. In this trial including 58 participants randomized to receive L-CRA plus intravitreal ranibizumab injections or a sham procedure plus intravitreal ranibizumab injections, the addition of an L-CRA significantly reduced the number of ranibizumab injections required in the follow-up period from 7 months to 2 years. The intervention group had better visual acuity at 2 years. These results suggest that the inclusion of an L-CRA to current intravitreal treatment for central retinal vein occlusion can reduce the number of injections required and lessen the burden of therapy.

Invited Commentary

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