We were dismayed by the reckless political commentary in the paper “Incidence of Endophthalmitis after Corneal Transplant or Cataract Surgery in a Medicare Population.”

The authors noted a “slightly higher” endophthalmitis rate within 6 months of corneal transplants in their current study (2006–2011) compared with a previous study of Medicare records (1984–1987). They also noted an estimated decrease in the percentage of corneal transplants performed in hospital settings from 56% to 38% between the time periods when the 2 studies were conducted. They “speculate that this shift may contribute to the higher observed rate of endophthalmitis in the current study.”

This is a reckless, very likely unfounded, statement based on at least 2 facts:

1. The authors were analyzing Medicare data on billings from both outpatient facilities and inpatient facilities. Therefore, they did not need to speculate; they could have directly calculated rates of endophthalmitis after surgeries in each type of facility.

2. There are many confounding variables in this study making the statistics cited for endophthalmitis clinically irrelevant and flawed. The following are the 2 worst confounding variables. By 6 months after a corneal transplant, there is a very good likelihood that an episode of endophthalmitis or trip back to the operating room may have been suture or wound related in the postoperative period and unrelated to the actual surgery. Another fatal flaw in the analysis was using the billing of an intraocular or intravitreal injection of a medication in the 6 months after surgery as an indicator of endophthalmitis. There has been a dramatic increase in Medicare billings for intravitreal injections of medications for macular degeneration between 2006 and 2011 compared with 1984 to 1987. An elderly Medicare patient has a much higher chance of having preexisting wet macular degeneration in the first 6 months after transplant surgery than endophthalmitis.

In the article, the Current Procedural Terminology (CPT) codes are mixed up for the sensitive and specific cases of endophthalmitis. Codes 67005/67010 are CPT codes for anterior vitrectomy and not for intravitreal injection (67028). The CPT code for intravitreal injection (67028) is also used for bevacizumab (Avastin, Genentech, South San Francisco, CA) and Ranibizumab (Lucentis, Genentech). It is also unclear how the authors treated patients with bilateral grafts or cataracts within a 180-day period. From 2006 to 2011, some eyes with endothelial keratoplasty were having both eyes treated within a 180-day period.

Only from chart reviews can one determine if a case of endophthalmitis has occurred in this population of patients. The fact that previous studies also used flawed methods does not make the methods correct for this study.

Re: Du et al.: Incidence of endophthalmitis after corneal transplant or cataract surgery in a Medicare population (Ophthalmology 2014;121:290-8)

Dear Editor:

We agree with Sundaram et al that it is important for future studies that standardized optical coherence tomography (OCT) methods and anatomic measures of cone loss be used. Differences in methodology of the studies could account for the differences in results. Sundaram et al categories patients with achromatopsia into 5 groups based on outer retinal OCT findings: (1) Continuous ISe, (2) ISe disruption, (3) absent ISe, (4) foveal hyporeflective zone, and (5) outer retinal atrophy. There could be significant overlap between these groups. For instance, in Figure 1(ii), although classified as an ISe disruption, there is also a hyporeflective zone, although it is small. Moreover, all patients with a hyporeflective zone (category 4) would have an ISe disruption too (e.g., Figures 1iv and 2). Dividing the cohort into these 5 categories also results in much smaller subgroups, reducing the power of the study.

References


Re: Sundaram et al.: Retinal structure and function in achromatopsia: implications for gene therapy (Ophthalmology 2014;121:234-45)

Dear Editor:

We read with great interest the study recently published by Sundaram et al on retinal structure and function in achromatopsia. In their study, no association between retinal morphology and age of patients diagnosed with achromatopsia has been reported. This is different from previous independent studies that have shown that there is a strong association between outer retinal disruption (inner segment ellipsoid [ISe] disruption) and age. Both of the previous studies found that ISe disruption was less commonly seen in young patients, whereas almost all older patients had an ISe disruption. The extent of the disruption was variable and could be associated with a hyporeflective zone or retinal pigment epithelium atrophy.

In contrast with previous studies, which found ISe disruption in 87.5% to 100% of patients aged ≥40, Sundaram et al found an ISe disruption in only 50% of patients aged >40. We agree with Sundaram et al that it is important for future studies that standardized optical coherence tomography (OCT) methods and anatomic measures of cone loss be used. Differences in methodology of the studies could account for the differences in results. Sundaram et al categories patients with achromatopsia into 5 groups based on outer retinal OCT findings: (1) Continuous ISe, (2) ISe disruption, (3) absent ISe, (4) foveal hyporeflective zone, and (5) outer retinal atrophy. There could be significant overlap between these groups. For instance, in Figure 1(ii), although classified as an ISe disruption, there is also a hyporeflective zone, although it is small. Moreover, all patients with a hyporeflective zone (category 4) would have an ISe disruption too (e.g., Figures 1iv and 2). Dividing the cohort into these 5 categories also results in much smaller subgroups, reducing the power of the study.