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EDITORIAL

2017 Issue 6 at a Glance:

Our final issue of the year includes five original articles, a review, and four case reports from various areas of ophthalmology which we hope you will find interesting and informative.

Turgut et al. investigated the protective effect of sesamol (3,4-methylenedioxyphenol), a potent antioxidant compound found in sesame oil, in an experimental sodium selenite cataract model in Spraque Dawley rats. They demonstrated that rats administered intraperitoneal sesamol had lower total oxidant status and malondialdehyde levels and higher total antioxidant status and reduced glutathione levels in lens supernatants compared to controls, and showed that sesamol treatment inhibited cataract formation (see pages 309-314).

Rheumatoid arthritis (RA) is a systemic inflammatory disease that primarily affects joints but can also manifest with extra-articular symptoms. Keratoconjunctivitis sicca, peripheral corneal ulcers, keratitis, episcleritis, scleritis, and choroiditis can be seen in 25% of RA patients. Gökmen et al. measured corneal, scleral, choroidal, and foveal thicknesses using optical coherence tomography and reported that only scleral thickness was statistically thinner in RA patients than the healthy control group (343.7±42.2 μm vs 420.9±42.4 μm) (see pages 315-319).

Local anesthesia toxicity syndrome (LATS) is a serious clinical condition that initially appears with symptoms such as metallic taste in the mouth, perioral numbness, tinnitus, general malaise, slurred speech, and diplopia, and central nervous system (CNS) excitation (agitation, confusion, convulsions) and progressing to CNS depression (mental depression, coma, apnea) if not treated promptly. Hyperdynamic findings such as hypertension and tachyarrhythmia, as well as signs of cardiac depression such as hypotension, bradyarrhythmia, conduction block, and asystole may occur with or after CNS signs. The recommended treatment for LATS is 20% intravenous lipid emulsion. Lipids have been shown to bind circulating anesthetics, thus improving cardiac mitochondrial function and providing significant symptomatic improvement. Urfalıoğlu et al. conducted a 14-question questionnaire with 104 ophthalmologists working in various positions at different hospitals in order to assess their knowledge and increase their awareness of LATS and intravenous lipid emulsion therapy. The respondents listed allergy and hypotension as the most common early signs of toxicity, and cardiac arrest and hepatotoxicity as late signs. Although the majority of respondents said they would choose symptomatic treatment (72.4%), cardiopulmonary resuscitation, and antihistaminic drugs to treat LATS, it was determined that 62.5% of the physicians had never encountered LATS and 65% had never heard of using 20% lipid therapy for toxicity (see pages 320-325).

Carotid artery disease (CAD) is characterized by stenosis or occlusion in the carotid arterial system. The most common cause of obstruction is atherosclerosis, but inflammatory diseases such as giant cell arteritis, fibromuscular dysplasia and Behçet's disease may also be responsible. In a study by Çakır et al. using spectral domain optical coherence tomography (SD-OCT) to evaluate the effect of CAD on retinal morphology, 23 eyes of patients with internal carotid artery stenosis were compared with 24 healthy subjects. They authors report that the patient group had significantly lower total macular thickness values (obtained from all 9 Early Treatment Diabetic Retinopathy Study [ETDRS] zones) and outer ETDRS thickness values ($p<0.05$) (see pages 326-330).

Retinal vein occlusion (RVO) is the second most common cause of vision loss in industrialized countries, following diabetic retinopathy. Macular edema, with or without ischemia, is a common complication of branch RVO and central RVO. Laser photocoagulation, intravitreal steroids, and anti-VEGF agents are used in treatment. Dexamethasone (DEX) implants contain 0.7 mg of micronized, preservative-free DEX in a biodegradable polylactic-co-glycolic acid copolymer that gradually degrades in the presence of carbon dioxide and water. The implants are designed to deliver medication for up to 6 months. Intermittent release helps to prevent sudden peaks in drug concentration and avoid the need for intravitreal injections. Kanra et al. evaluated the efficacy and safety of DEX implant applied as monotherapy or as part of combination therapy in 25 eyes of 25 patients with RVO-induced macular edema, and reported significant

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improvements in best corrected visual acuity (BCVA) and macular thickness on OCT. There was a very low rate of complications due to repeated DEX implants in their study; baseline BCVA was determined to be the main predictor of final visual acuity, and the most effective model was the combination of ellipsoid zone integrity and baseline BCVA (see pages 331-337).

In this issue's review, Ayşe Öner discusses the most recent developments and outcomes of clinical studies regarding gene therapy for hereditary retinal dystrophies, which are a group of conditions that show considerable genetic variation and lead to impaired night vision, color vision deficit, visual field loss, and even blindness. In light of recent developments in the efficacy and safety of gene therapy, vector-mediated gene replacement therapies have gone a long way and yielded promising results in animal studies. Viral vectors have been administered safely and effectively in humans in initial clinical trials (see pages 338-343).

In our first case report of the issue, Bostancı and Aydın Akova discuss the clinical findings and treatment of infectious crystalline keratopathy secondary to fungal keratitis in a 51-year-old man who underwent allogeneic bone marrow transplantation in 2011 due to a myelocytic leukemia and developed Graft-versus-host disease (see pages 344-347).

Next, Ustaoğlu et al. discuss the differential diagnosis and treatment of a 25-year-old female patient who presented with a history of bilateral blurred vision, headache, dizziness, and fainting. Fundus examination revealed numerous yellow-white patchy lesions resembling cotton-wool spots surrounding the optic discs of both eyes, intraretinal hemorrhage foci, and macular edema. As there was no history of trauma, the patient was diagnosed with Purtscher-like retinopathy. Hemoglobinemia, thrombocytopenia and acute renal failure were detected on systemic evaluation, and the patient was diagnosed atypical hemolytic uremic syndrome in the nephrology unit. Eculizumab was added to the hemodialysis and plasmapheresis therapy, and the patient's retinal lesions regressed and visual acuity returned to 20/20 in both eyes (see pages 348-350).

Macular hole is a rare cause of retinal detachment (RD) and accounts for approximately 0.5% of all detachment cases. One of the most common causes of macular holes leading to RD is high myopia. Sönmez and Keleş describe a 68-year-old female patient with posterior staphyloma accompanied by myopic chorioretinal degenerative changes, mild retinal elevation in the macular region, and OCT findings of posterior retinal detachment associated with macular hole and staphyloma. They reported achieving anatomic success after performing pars plana vitrectomy, internal limiting membrane peeling, macular buckling, and perfluoropropane gas tamponade. However, the functional outcomes were not as successful as they anticipated due to chorioretinal atrophy in the posterior pole (see pages 351-354).

In the final case report, Cebeci and Kır discuss the clinical, fundus fluorescein angiography, indocyanine-green angiography, and OCT findings and treatment of a patient with neovascular age-related macular degeneration patient who had polypoidal choroidal vasculopathy and retinal angiomatous proliferation in the same eye. The patient had not responded to three consecutive monthly intravitreal ranibizumab injections, but the authors report achieving anatomical and functional improvement by switching to intravitreal aflibercept therapy (see pages 355-357).

Respectfully on behalf of the Editorial Board,
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