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AT A GLANCE

2023 Issue 6 at a Glance:

Esteemed colleagues,

In our last issue of 2023, the Turkish Journal of Ophthalmology features six original studies, one invited review, and three case reports.

In their study titled "Revisiting Pentacam Parameters in the Diagnosis of Subclinical and Mild Keratoconus Based on Different Grading System Definitions," Toprak et al. aimed to reassess the performance of Pentacam parameters in the diagnosis of subclinical keratoconus (KC) and mild KC according to the different definitions in the Amsler-Krumeich (AK), Collaborative Longitudinal Evaluation of Keratoconus (CLEK), and ABCD systems. The cross-sectional study included 24 eyes with subclinical KC, 144 eyes with mild KC (according to AK in 101 eyes, CLEK in 28 eyes, and ABCD in 15 eyes), and 70 normal eyes and evaluated minimum pachymetry, KISA% index, inferior-superior keratometric asymmetry, corneal aberrations, Pentacam indices, front/back elevations, pachymetric progression index, Ambrosio-Relational Thickness (ARTmax), and Belin/Ambrosio Enhanced Ectasia Display scores (Df, Db, Dp, Dt, Da and D-final). Of these, ARTmax, minimum pachymetry, Dt, and Da were found to have the highest ability to distinguish eyes with subclinical KC from normal eyes. The authors emphasized that uniform and definitive criteria for the classification of subclinical and clinical KC are needed to reach a diagnostic and therapeutic consensus in KC (See pages 324-335).

A study by Kazancı et al. titled "The Effect of Autografts from the Inferior and Superior Bulbar Conjunctiva on the Ocular Surface in Primary Pterygium Surgery: A Cytology Study" investigated the impact of using a superior or inferior conjunctival autograft in primary pterygium surgery on the ocular surface. The study included 40 eyes of 40 patients who underwent pterygium surgery with autografting. Before and 1 year after the surgery, cell counts were performed on impression cytology samples obtained from the bulbar conjunctiva, and Schirmer 1 test, tear breakup time (TBUT), conjunctival staining with lissamine green, and corneal staining with fluorescein were evaluated. Corneal and conjunctival staining scores, TBUT, and Schirmer test data showed significant improvement in both patient groups after surgery ($p<0.05$), with no differences between the groups ($p>0.05$). In both preoperative and postoperative impression cytology, the number of goblet cells was higher in the lower bulbar conjunctiva than in the superior bulbar conjunctiva ($p<0.001$). However, no difference was observed in terms of epithelial cells or mucin spots. The authors reported that although there was no significant difference in cytologic parameters between the groups postoperatively ($p>0.05$), obtaining autografts from the inferior bulbar conjunctiva may be a good option in cases where the superior bulbar conjunctiva cannot be used or glaucoma surgery may be performed later (See pages 336-342).

Saracaloğlu et al. present another article on pterygium in this issue, titled "Expression Analysis of the Small GTP-Binding Protein Rac in Pterygium." This study aimed to determine *Rac1, Rac2,* and *Rac3* protein expression in pterygium tissue and compare these expression levels with those in normal conjunctival tissue. Tissue samples from 78 patients with primary pterygium and healthy conjunctival graft samples taken during pterygium surgery were used in the study. RAC1, RAC2, and RAC3 gene expressions in the pterygium tissues did not differ from those in control samples ($p>0.05$). In addition, there was no significant difference in Rac2 or Rac3 protein expressions in pterygium tissues compared to normal tissues in western blot and immunohistochemical analyses ($p>0.05$) (See pages 343-348).

In a retrospective study titled "Evaluation of Central and Peripheral Retinal Vascular Changes in the Fellow Eyes of Patients with Unilateral Retinal Vein Occlusions," Ertop et al. aimed to detect vascular changes in the peripheral retina and macula in the fellow eyes of patients with unilateral retinal vein occlusion (RVO) by examining 53 patients with unilateral RVO and 44 age-matched control subjects. They examined the presence of peripheral retinal vascular pathology in both eyes using high quality ultra-widefield fundus fluorescein angiography, as well as laser flare photometry values and macular vascular density, flow area, and foveal avascular zone measurements on optical coherence tomography angiography. Peripheral retinal vascular pathologies were detected in the fellow eye in 36 patients (67.9%) (See pages 349-355).

The study titled "Real-World Outcomes of Intravitreal Anti-Vascular Endothelial Growth Factor Treatment for Diabetic Macular Edema in Türkiye: MARMASIA Study Group Report No. 1" is a real-life study by 21 ophthalmologists working in 8 tertiary hospitals on the Asian side of the Marmara Region of Türkiye (MARMASIA study group). This comprehensive study included 1,372 eyes (854 patients) treated using a pro re nata protocol in routine practice. The authors aimed to determine the demographic and clinical characteristics and treatment outcomes of diabetic macular edema (DME) patients who underwent anti-vascular endothelial growth factor (anti-VEGF) intravitreal injection (IVI). Five groups were

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formed, with each cohort including the previous one, by collecting patients' baseline and follow-up data at 3, 6, 12, 24, and 36 months. The number of eyes (patients) in the 3, 6, 12, 24, and 36-month cohorts were 1372 (854), 1352 (838), 1185 (722), 972 (581), and 623 (361), respectively. The mean change in best corrected visual acuity (BCVA) and central macular thickness (CMT) from baseline at 3, 6, 12, 24, and 36 months were +7.6, +9.1, +8.0, +8.6, and +8.4 letters and -115.4, -140.0, -147.9, -167.3, and -215.4 μm, respectively ($p<0.001$). The median number of IVIs in the cohorts were 3.0, 3.0, 5.0, 7.0, and 9.0, while the overall rates of anti-VEGF switch and intravitreal dexamethasone implant (IDI) combination were calculated as 18.5% and 35.0%, respectively. The largest real-life DME study reported from Turkey to date, this study showed that anti-VEGF IVI numbers and letter gains were lower than in randomized controlled studies. The authors emphasized that because of the lower baseline BCVA and higher IDI combination rate, these gains differed from those in other real-life studies (See pages 356-368).

Tekcan et al. conducted a study titled "Anterior Segment Changes and Refractive Outcomes after Cataract Surgery Combined with Gonioscopy-Assisted Transluminal Trabeculotomy in Open-Angle Glaucoma" aiming to compare the accuracy of intraocular lens (IOL) calculation formulas and identify factors affecting refractive error in patients undergoing combined phacoemulsification and gonioscopy-assisted transluminal trabeculotomy (phaco-GATT). They retrospectively reviewed 53 eyes of 53 patients who underwent phaco-GATT surgery, comparing anterior segment (AS) parameters measured by Scheimpflug camera preoperatively and at postoperative 3 months and the mean prediction error (PE) and absolute PE using the Sanders Retzlaff-Kraft/theoretical (SRK/T), Barrett-Universal II, Hill-radial-based function (Hill-RBF), and Kane formulas. There was significant shortening of axial length (AL) and enlargement of anterior chamber depth (ACD), anterior chamber angle (ACA), and anterior chamber volume postoperatively ($p<0.001$), while the closest deviation to zero was obtained with the Kane formula (0.001 diopters). Preoperative AL was significantly correlated with mean PE in all formulas except Kane, and Barrett was the only formula in which PE was not significantly correlated with postoperative ACD and ACA (See pages 369-376).

Özkan penned a review titled "Golden Indications and an Overview on the Use of Botulinum Toxin in Strabismus" discussing the current indications of botulinum A toxin (BAT) in strabismus in light of the author's more than 30 years of clinical experience with BAT, focusing especially on ideal first-choice practices, referred to as "golden indications" (See pages 377-385).

In the case reports section, the first case is presented by Bayramoğlu et al. under the title "Extraretinal Fibrovascular Proliferation in a Neonate Possibly Associated with an *ESAM* Gene Variant." They comprehensively examined the diagnostic process of a female infant born at postmenstrual 35 weeks whose fundus examination revealed venous dilatation and arterial tortuosity in both eyes and advanced extraretinal fibrovascular proliferation (See pages 386-389).

Another case report titled "Neurofibromatosis Type 1 Vasculopathy Presenting as Branch Retinal Vein Occlusion: Case Report and Review of the Literature" by Özdemir Zeydanlı and Özdek presents the findings of a 2-year-old girl with neurofibromatosis type 1 (NF1) who had retinal vein branch occlusion secondary to NF1 and peripheral retinal ischemia in the light of the relevant literature. The authors emphasized that NF1-induced retinal occlusions may occur even at very young ages and that detailed fundus examination with fluorescein angiography was necessary in all patients with NF1 (See pages 390-394).

The final article in this issue is a case report by Özdemir et al. titled "Surgical Treatment of Bullous Exudative Retinal Detachment Secondary to Atypical Bilateral Central Serous Chorioretinopathy." This report examined the diagnosis, treatment, and follow-up of a 28-year-old woman with bullous exudative retinal detachment (RD) associated with an atypical variant of bilateral central serous chorioretinopathy (CSCR). The authors emphasized that bullous exudative RD may occur secondary to CSCR, albeit rarely, and that a favorable outcome can be obtained with pars plana vitrectomy, subretinal fluid drainage, and laser photocoagulation (See pages 395-398).

As we bid farewell to 2023 with articles featuring examples of the comprehensive diagnosis and successful treatment of even rare and challenging diseases, we hope the new year brings peace and tranquility to the world.

Respectfully on behalf of the Editorial Board,
Hakan Özdemir, MD