



www.offalmoloji.org

TURKISH JOURNAL OF OPHTHALMOLOGY

TURKISH JOURNAL OF OPHTHALMOLOGY

TJO

E-ISSN: 2149-8709

Research Articles

Evaluation of Medically Reversible Limbal Stem Cell Deficiency
Korkmaz et al.; İzmir, Türkiye

Effects of Glaucoma Treatment on Ocular Surface and Tear Functions: Comparison of Trabeculectomy and Antiglaucoma Drops
Mermer et al.; Şanlıurfa, Mersin, Türkiye

Does Laser Iridotomy Cause Secondary Epiretinal Membrane?
Akmaz and Talay; İzmir, Türkiye

Human Amniotic Membrane: A Seal for Complex Retinal Detachments
Özdemir Zeydanlı et al.; Ankara, Türkiye

Multilayered Inverted Internal Limiting Membrane Flap Technique in Optic Disc Pit Maculopathy
Özdemir et al.; İstanbul, Türkiye

Turkish Retinoblastoma Research: A Bibliometric Analysis (1966-2024)
Aykut and Sarigül Sezenöz; Michigan, USA; İstanbul, Ankara, Türkiye

Review

Caffeine and Vision: Effects on the Eye
Yan et al.; Lewisburg, USA; Milan, Italy; Pittsburg, USA

Case Reports

Partial Lateral Rectus Avulsion Due to Cat Scratch
Dudu Deniz Açar; Ankara, Türkiye

Pulsatile Proptosis and Sphenoid Wing Dysplasia with no Evidence of Neurofibromatosis Type 1: A Case Report and Review of the Literature
Delibay Akgün et al.; Diyarbakır, Manisa, Türkiye

Conjunctival Collagen Cross-Linking for the Treatment of Leaking Avascular Cystic Bleb
Koçer and Turpçuoğlu; Ankara, Türkiye

TURKISH JOURNAL OF OPHTHALMOLOGY

TJO



www.offtalmoloji.org

Editor-in-Chief

BANU BOZKURT, MD

Selçuk University Faculty of Medicine, Department of Ophthalmology, Konya, Türkiye

Areas of Interest: Cornea and Ocular Surface Disease, Glaucoma, Allergy and Immunology

E-mail: drbanubozkurt@yahoo.com

ORCID ID: orcid.org/0000-0002-9847-3521

Associate Editors

SAIT EĞRİLMEZ, MD

Izmir University of Economics Faculty of Medicine, Izmir, Türkiye

Areas of Interest: Cornea and Ocular Surface Disease, Contact Lens, Refraction, Cataract and Refractive Surgery

E-mail: saitegrilmez@gmail.com

ORCID ID: orcid.org/0000-0002-6971-527X

HAKAN ÖZDEMİR, MD

Bezmialem Vakıf University Faculty of Medicine, Department of Ophthalmology, Istanbul, Türkiye

Areas of Interest: Medical Retina, Vitreoretinal Surgery

E-mail: hozdemir72@hotmail.com

ORCID ID: orcid.org/0000-0002-1719-4265

NILGÜN YILDIRIM, MD

Eskişehir Osmangazi University Faculty of Medicine, Department of Ophthalmology, Eskişehir, Türkiye

Areas of Interest: Glaucoma, Cornea and Ocular Surface, Oculoplastic Surgery

E-mail: nyildirim@yahoo.com

ORCID ID: orcid.org/0000-0001-6506-0336

ÖZLEM YILDIRIM, MD

Mersin University Faculty of Medicine, Department of Ophthalmology, Mersin, Türkiye

Areas of Interest: Uveitis, Medical Retina, Glaucoma

E-mail: dryildirimo@hotmail.com

ORCID ID: orcid.org/0000-0002-3773-2497

Statistics Editor

AHMET DİRİCAN,

Istanbul University Istanbul Faculty of Medicine, Department of Biostatistics and Medical Informatics, Istanbul, Türkiye

English Language Editor

JACQUELINE RENEE GUTENKUNST, MARYLAND, USA

Advisory Board

Özgül ALTINTAŞ,

Acibadem University Faculty of Medicine, Department of Ophthalmology, Istanbul, Türkiye

Erdinç AYDIN,

Izmir Katip Çelebi University Atatürk Training and Research Hospital, Clinic of Ophthalmology, Izmir, Türkiye

Atilla BAYER,

Clinic of Ophthalmology, Dünyagöz Hospital, Ankara, Türkiye

Jose M. BENÍTEZ-del-CASTILLO,

Universidad Complutense de Madrid, Hospital Clinico San Carlos, Department of Ophthalmology, Madrid, Spain

M. Pinar ÇAKAR ÖZDAL,

Ankara Medipol University Faculty of Medicine, Department of Ophthalmology, Ankara, Türkiye

Murat DOĞRU,

Keio University Faculty of Medicine, Department of Ophthalmology, Tokyo, Japan

Ahmet Kaan GÜNDÜZ,

Ankara University Faculty of Medicine, Department of Ophthalmology, Ankara, Türkiye

Elif ERDEM,

Çukurova University Faculty of Medicine, Balcalı Hospital Department of Ophthalmology, Adana, Türkiye

Ömer KARTI,

Izmir Democracy University, Buca Seyfi Demirsoy Hospital, Izmir, Türkiye

Tero KIVELÄ,

University of Helsinki, Helsinki University Hospital, Department of Ophthalmology, Helsinki, Finland

Sibel KOCABEYOĞLU,

Hacettepe University Faculty of Medicine, Department of Ophthalmology, Ankara, Türkiye

Anastasio G.P. KONSTAS,

Aristotle University of Thessaloniki, Department of Ophthalmology, Thessaloniki, Greece

Sedef KUTLUK,

Private Practice, Ankara, Türkiye

Anat LOEWENSTEIN,

Tel Aviv University Sackler Faculty of Medicine, Department of Ophthalmology, Tel Aviv, Israel

Mehmet Cem MOCAN,

University of Illinois at Chicago, Department of Ophthalmology and Visual Sciences, Chicago

Halit OĞUZ,

Istanbul Medeniyet University Faculty of Medicine, Department of Ophthalmology, Göztepe Training and Research Hospital, Istanbul, Türkiye

Ayşe ÖNER,

Acibadem Healthcare Group, Kayseri Acibadem Hospital, Kayseri, Türkiye

Altan Atakan ÖZCAN,

Çukurova University Faculty of Medicine, Department of Ophthalmology, Adana, Türkiye

H. Nida ŞEN,

George Washington University, National Eye Institute, Department of Ophthalmology, Washington, USA

Sinan TATLIPINAR,

Yeditepe University Faculty of Medicine, Department of Ophthalmology, Istanbul, Türkiye

Zeliha YAZAR,

University of Health Sciences Türkiye Ankara City Hospital MHC Building Eye Units Division, Ankara, Türkiye

Bülent YAZICI,

Private Practice, Bursa, Türkiye

Publishing House

Molla Gürani Mah. Kaçamak Sokak No: 21, 34093 Fındıkzade-Istanbul-Türkiye

Publisher Certificate Number: 14521

Phone: +90 (530) 177 30 97

E-mail: info@galenos.com.tr

Online Publishing Date: October 2024

International scientific journal published bimonthly.

E-ISSN: 2149-8709



The Turkish Journal of Ophthalmology is an official journal of the Turkish Ophthalmological Association.

On Behalf of the Turkish Ophthalmological Association Owner

Hüban ATİLLA

Ankara University Faculty of Medicine, Department of Ophthalmology, Ankara, Türkiye

TURKISH JOURNAL OF OPHTHALMOLOGY

TJO



www.ofthalmoloji.org

Please refer to the journal's webpage (<https://www.ofthalmoloji.org/>) for "About Us", "Instructions to Authors" and "Ethical Policy".

The editorial and publication process of the Turkish Journal of Ophthalmology are shaped in accordance with the guidelines of ICMJE, WAME, CSE, COPE, EASE, and NISO. The journal adheres to the Principles of Transparency and Best Practice in Scholarly Publishing.

The Turkish Journal of Ophthalmology is indexed in **PubMed/MEDLINE, PubMed Central (PMC), Web of Science-Emerging Sources Citation Index (ESCI), Scopus, TÜBİTAK/ULAKBİM, Directory of Open Access Journals (DOAJ), EBSCO Database, Gale, CINAHL, Proquest, Embase, British Library, Index Copernicus, J-Gate, IdealOnline, Türk Medline, Hinari, GOALI, ARDI, OARE, AGORA,** and **Turkish Citation Index.**

Issues are published electronically six times a year.

Owner: Hüban ATİLLA on Behalf of the Turkish Ophthalmological Association Owner

Responsible Manager: Banu BOZKURT

CONTENTS

Research Articles

- 251 Evaluation of Medically Reversible Limbal Stem Cell Deficiency
İlayda Korkmaz, Nihat Furkan Eratılğan, Melis Palamar, Sait Eğrilmez, Ayşe Yağcı, Özlem Barut Selver; İzmir, Türkiye
- 257 Effects of Glaucoma Treatment on Ocular Surface and Tear Functions: Comparison of Trabeculectomy and Antiglaucoma Drops
Abdussamet Mermer, Özer Dursun, Öznur Bucak, Hamide Sayar, Fatma Merve Bektaş, Pınar Eröz, Ayça Yılmaz; Şanlıurfa, Mersin, Türkiye
- 263 Does Laser Iridotomy Cause Secondary Epiretinal Membrane?
Okan Akmaz, Nurdan Talay; İzmir, Türkiye
- 268 Human Amniotic Membrane: A Seal for Complex Retinal Detachments
Ece Özdemir Zeydanlı, Şengül Özdek, Ebru Yalçın, Hüseyin Baran Özdemir; Ankara, Türkiye
- 275 Multilayered Inverted Internal Limiting Membrane Flap Technique in Optic Disc Pit Maculopathy
Hakan Özdemir, Furkan Kırık, Gizem Elif Atlı, Begüm Petek Al; İstanbul, Türkiye
- 282 Turkish Retinoblastoma Research: A Bibliometric Analysis (1966-2024)
Aslan Aykut, Almıla Sarıgül Sezenöz; Michigan, USA; İstanbul, Ankara, Türkiye

Review

- 291 Caffeine and Vision: Effects on the Eye
Audrey Yan, Antonio La Rosa, Preeti Patil Chhablani, Jay Chhablani; Lewisburg, USA; Milan, Italy; Pittsburg, USA

Case Reports

- 301 Partial Lateral Rectus Avulsion Due to Cat Scratch
Dudu Deniz Açar; Ankara, Türkiye
- 304 Pulsatile Proptosis and Sphenoid Wing Dysplasia with no Evidence of Neurofibromatosis Type 1: A Case Report and Review of the Literature
Yeliz Delibay Akgün, Mustafa Erdoğan, Muhammed Altınışik, Hüseyin Mayalı, Süleyman Sami İlker; Manisa, Türkiye
- 309 Conjunctival Collagen Cross-Linking for the Treatment of Leaking Avascular Cystic Bleb
Ali Mert Koçer, Büşra Turpçuoğlu; Ankara, Türkiye

AT A GLANCE

2024 Issue 5 at a Glance:

Esteemed colleagues,

In its fifth issue of 2024, the Turkish Journal of Ophthalmology brings you six original studies, one review, and three case reports.

A clinical study by Korkmaz et al. titled "Evaluation of Medically Reversible Limbal Stem Cell Deficiency" aimed to evaluate the clinical characteristics and treatment strategies of patients with limbal stem cell deficiency (LSCD) that regressed as a result of medical treatment. Among 29 eyes of 21 patients examined, the pre-treatment LSCD stage was determined to be stage 1A in 5 eyes (17.2%), stage 1B in 12 eyes (41.4%), stage 1C in 4 eyes (13.8%), stage 2A in 4 eyes (13.8%), and stage 2B in 4 eyes (13.8%). With etiology-targeted medical treatment, LSCD completely resolved in 6 eyes (20.7%) and in the remaining eyes decreased in severity to below stage 2B, which is the threshold for surgery. The authors emphasized that although limbal stem cell transplantation is generally accepted as the main treatment approach for LSCD, in the early stages it can be treated with the right medical treatment, without the need for surgical intervention (See pages 251-256).

In their study titled "Effects of Glaucoma Treatment on Ocular Surface and Tear Functions: Comparison of Trabeculectomy and Antiglaucoma Drops", Mermer et al. investigated tear function and ocular surface disease (OSD) findings in glaucoma patients treated with antiglaucoma medication in one eye and trabeculectomy surgery in the other eye. The patient group included 38 eyes of 19 patients who underwent mitomycin C-augmented trabeculectomy at least 6 months earlier and were followed up without medication in the operated eye while continuing to use antiglaucoma drugs in the fellow eye. The control group comprised 20 eyes of 20 healthy individuals. While no difference in the incidence of OSD was observed between the eyes that underwent trabeculectomy and those receiving antiglaucoma medications, both eyes of the glaucoma patients differed significantly from controls in terms of tear break-up time, corneal and conjunctival fluorescein staining, Schirmer II test, and Nelson stages ($p<0.05$) (See pages 257-262).

A retrospective study by Akmaz and Talay titled "Does Laser Iridotomy Cause Secondary Epiretinal Membrane?" aimed to determine the frequency of epiretinal membrane (ERM) in the long term after neodymium yttrium-doped aluminum garnet laser iridotomy (LI). The study examined 94 eyes with at least 4 years of follow-up and a control group of 66 eyes followed up for suspected glaucoma. ERM developed in 36 (38.2%) of the 94 eyes in the LI group versus 13 (19.6%) of the 66 eyes in the control group. The authors emphasized that the LI procedure is a predisposing factor for the development of ERM (See pages 263-267).

Özdemir Zeydanlı et al. retrospectively evaluated the effectiveness of human amniotic membrane (hAM) transplantation in the surgical treatment of complicated retinal detachments (RD) due to various etiologies in their study titled "Human Amniotic Membrane: A Seal for Complex Retinal Detachments". Surgical indications included RD associated with high myopic macular hole (MH) ($n=5$), RD associated with traumatic large macular tears ($n=4$), combined tractional RD and MH associated with cicatricial retinopathy of prematurity ($n=2$), combined RD associated with severe retinitis ($n=1$), and RD associated with morning glory syndrome ($n=1$). The authors emphasized that the use of the described technique, especially in pediatric cases, was a distinguishing feature of the study. During an average follow-up period of 15 months (range, 6-30 months), 75% of MHs closed with a single surgery, while 25% required a second surgery due to hAM contraction/dislocation. In 92% of the cases, silicone could be removed during follow-up and the retina remained attached (See pages 268-274).

In their study titled "Multilayered Inverted Internal Limiting Membrane Flap Technique in Optic Disc Pit Maculopathy", Özdemir et al. applied the multilayer inverted internal limiting membrane (ML-ILM) flap technique previously used in MH surgery in eyes with optic disc pit maculopathy (ODPM) and evaluated the anatomical and visual outcomes. Anatomical and functional gains were observed in all eyes during follow-up, and the authors stated that the ML-ILM flap technique may be a preferable surgical option to achieve both high anatomical and functional success and flap stabilization (See pages 275-281).

In their study titled "Turkish Retinoblastoma Research: A Bibliometric Analysis (1966-2024)", Aykut and Sarıgül Sezenöz aimed to conduct the first bibliometric analysis of retinoblastoma studies conducted in Türkiye and determine the leading institutions, authors, international collaborative studies, and areas open to development. Results obtained by searching international databases (Web of Science [WoS] and Scopus), a national database (TR Index), and gray literature sources (theses and Scientific and Technological Research Council of Türkiye projects) were cleaned and analyzed using bibliometric tools. A search from 1966 to 2024 yielded a total of 122 publications on the subject in WoS and Scopus, with articles being the most common document type ($n=78$, 63.9%). More than two-thirds of the publications were contributed by Istanbul University (48 publications, 23.8%),

AT A GLANCE

Hacettepe University (34 publications, 16.8%), Ankara University (33 publications, 16.3%), and Istanbul University-Cerrahpaşa (22 publications, 10.9%) (See pages 282-290).

The review in this issue was penned by Yan et al. and is titled “Caffeine and Vision: Effects on the Eye”. The article presents a comprehensive analysis of the ocular effects of caffeine, a psychoactive substance widely consumed in almost every social stratum in recent years, and is notable for its rich and current bibliography on the subject (See pages 291-300).

In the case reports section, Dudu Deniz Açar presents the first case under the title “Partial Lateral Rectus Avulsion Due to Cat Scratch” along with detailed visuals, emphasizing that traumatic isolated rectus muscle rupture without associated globe damage is extremely rare (See pages 301-303).

In an article titled “Pulsatile Proptosis and Sphenoid Wing Dysplasia with no Evidence of Neurofibromatosis Type 1: A Case Report and Review of the Literature”, Delibay Akgün et al. share detailed data from a 17-year-old male patient and present a comprehensive review of the related literature (See pages 304-308).

In a case report titled “Conjunctival Collagen Cross-Linking for the Treatment of Leaking Avascular Cystic Bleb”, Koçer and Turpçuoğlu comprehensively analyze the treatment process of a 70-year-old male patient who underwent trabeculectomy surgery 7 years earlier and was found to have a leaking avascular cystic bleb (See pages 309-312).

We hope that the articles selected for this issue will provide you interesting and enjoyable reading.

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