

## **Prof. Berna ÖZKAN**

### **Personal Information**

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### **Education Information**

Expertise In Medicine, Kocaeli University, Tip Fakültesi, Cerrahi Tip Bilimleri Bölümü, Turkey 2000 - 2004

### **Foreign Languages**

English, C1 Advanced

### **Dissertations**

Expertise In Medicine, Purpose: To compare the adherence of *Staphylococcus epidermidis* on AcrySof (Alcon) and poly(methyl methacrylate) (PMMA) intraocular lenses (IOLs) treated with vancomycin, teicoplanin, and cefuroxime. Setting: Kocaeli University, School of Medicine, Kocaeli, Turkey. Methods: The lenses were contaminated with *S epidermidis* solutions containing  $10^8$  colony-forming units. Intraocular lenses were placed in sterile triptic soy broth after being held in antibiotic solutions for 15 minutes. After that, sonication and vortex procedures were performed to remove all the attached bacteria that could not be removed by antibiotics. Ten microliters from each broth were taken and inoculated into sheep blood agar. The colonies were counted overnight. The statistical analyses were made using Mann-Whitney U and Kruskal-Wallis tests, and a P value less than 0.05 was considered statistically significant. Results: Regarding the inhibitory effect of antibiotics on bacterial adhesion, there was no statistically significant difference between AcrySof and PMMA lenses. In the cefuroxime group, the mean numbers of colony-forming units on AcrySof and PMMA lenses were  $35.2 \pm 6.94$  and  $30.8 \pm 18.69$ , respectively ( $P > .05$ ). In the teicoplanin group, the mean number of colony-forming units on AcrySof lenses was  $100.1 \pm 20.97$  and  $70.6 \pm 43.75$  on the PMMA lenses. The adherence in the vancomycin group was  $245 \pm 273.74$  colony-forming units for AcrySof lenses and  $159.8 \pm 101.94$  for PMMA lenses ( $P > .05$ ). Regarding the inhibitory effect of antibiotics, cefuroxime was the most effective, followed by teicoplanin and vancomycin, respectively. Overall, the mean numbers of colony-forming units on the lenses that were held in cefuroxime, teicoplanin, and vancomycin solutions were  $33.0 \pm 13.90$ ,  $85.35 \pm 36.66$ , and  $202.4 \pm 205.74$ , respectively ( $P = .000$ ). Conclusions: The results suggest that cefuroxime, teicoplanin, and vancomycin significantly inhibit bacterial adherence to IOLs. The effect of cefuroxime on adherence inhibition was significantly higher than that of teicoplanin and vancomycin. Bacterial adherence is an important factor in bacterial virulence. Antibiotics, especially cefuroxime, can successfully inhibit bacterial adherence., Kocaeli University, 2004

### **Research Areas**

Eye Diseases and Surgery

### **Academic Titles / Tasks**

Professor, Acibadem Mehmet Ali Aydinlar University, School Of Medicine, Department Of Surgical Sciences, 2018 -

Continues

Associate Professor, Kocaeli University, Tip Fakültesi, Cerrahi Tip Bilimleri Bölümü, 2005 - Continues

## Courses

Kapak Hastalıkları, Undergraduate, 2021 - 2022

Orbita Hastalıkları, Undergraduate, 2022 - 2023

Orbita Hastalıkları, Undergraduate, 2021 - 2022

Göz Kapığı Hastalıkları, Undergraduate, 2022 - 2023

Rerina damar hastalıkları, Undergraduate, 2021 - 2022

Retina Damar Hastalıkları, Undergraduate, 2022 - 2023

Türk Oftalmoloji Derneği, Postgraduate, 2021 - 2022

Retinal Damar Hastalıkları, Undergraduate, 2021 - 2022

## Jury Memberships

Appointment to Academic Staff-Professorship, Appointment to Academic Staff-Professorship, Marmara Üniversitesi, April, 2023

Appointment to Academic Staff-Professorship, Appointment to Academic Staff-Professorship, Acibadem Mehmet Ali Aydinlar Üniversitesi, December, 2022

Expertise In Medicine, Expertise In Medicine, Kocaeli Üniversitesi, November, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Gebze Teknik Üniversitesi, June, 2022

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, İstanbul Okan University, June, 2022

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Marmara University, January, 2022  
Doctorate, Doctorate, Gebze Technical University, January, 2022

Expertise In Medicine, Expertise In Medicine, Kocaeli University, June, 2021

## Published journal articles indexed by SCI, SSCI, and AHCI

### I. Quantitative analysis of preclinical ocular microvascular changes in Multisystemic Inflammatory Syndrome in Children (MIS-C) detected by optical coherence tomography angiography

YILMAZ TUĞAN B., SÖNMEZ H. E., ATAY K., AKGÜN E. Z., ÖZKAN B., Karabas L.  
EYE, no.3, pp.566-573, 2023 (SCI-Expanded)

### II. Evaluation of Meibomian Gland Loss and Ocular Surface Changes in Patients with Mild and Moderate-to-Severe Graves' Ophthalmopathy Meibomian gland loss in Graves' Ophthalmopathy

YILMAZ TUĞAN B., ÖZKAN B.

SEMINARS IN OPHTHALMOLOGY, vol.37, no.3, pp.271-276, 2022 (SCI-Expanded)

### III. Recurrent Episodes with Serous Retinal Detachment and Anterior Uveitis in a Patient Using Nivolumab (Anti -PD-1 Antibody) Therapy: A case report and literature review

YILMAZ TUĞAN B., ÖZKAN B., SÖNMEZ Ö.

SEMINARS IN OPHTHALMOLOGY, vol.36, no.8, pp.794-799, 2021 (SCI-Expanded)

### IV. Optical coherence tomography measurements in patients with systemic hypertension

Bursali O., ALTINTAS O., Agir A., YÜKSEL N., ÖZKAN B.

SCOTTISH MEDICAL JOURNAL, vol.66, no.3, pp.115-121, 2021 (SCI-Expanded)

### V. Vitreous IL-8 and VEGF levels in diabetic macular edema with or without subretinal fluid

- Yenihayat F., ÖZKAN B., KASAP M., KARABAŞ V. L., Guezel N., Akpinar G., PİRHAN ŞAHİN D.  
INTERNATIONAL OPHTHALMOLOGY, vol.39, no.4, pp.821-828, 2019 (SCI-Expanded)
- VI. Effect of eye trauma on mental health and quality of life in children and adolescents.  
Karaman S., Ozkan B., Gok M., Karakaya I., Kara O., ALTINTAŞ O., ALTINTAŞ L.  
International ophthalmology, vol.37, no.3, pp.539-544, 2017 (SCI-Expanded)
- VII. Correlation of the measurements of optical coherence tomography and diffuse tension imaging of optic pathways in amblyopia  
ALTINTAŞ O., Gumustas S., Cinik R., ANIK Y., Ozkan B., KARABAŞ V. L.  
INTERNATIONAL OPHTHALMOLOGY, vol.37, no.1, pp.85-93, 2017 (SCI-Expanded)
- VIII. Comparison of hyperbaric oxygen versus iloprost treatment in an experimental rat central retinal artery occlusion model  
Karaman S., Ozkan B., YAZIR Y., Yardimoglu M., Gok M., Kara O., VURAL Ç., FURAT RENÇBER S. H., Emek S. K.  
GRAEFES ARCHIVE FOR CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY, vol.254, no.11, pp.2209-2215, 2016  
(SCI-Expanded)
- IX. Reply re: "Quantitive Assessment of Optic Nerve with Diffusion Tensor Imaging in Patients with Thyroid Orbitopathy"  
Ozkan B., ANIK Y., Katre B., Altintas O., Gencturk M., YÜKSEL N.  
OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY, vol.31, no.6, pp.486-487, 2015 (SCI-Expanded)
- X. Quantitative Assessment of Optic Nerve With Diffusion Tensor Imaging in Patients With Thyroid Orbitopathy  
Ozkan B., ANIK Y., Katre B., Altintas O., Gencturk M., YÜKSEL N.  
OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY, vol.31, no.5, pp.391-395, 2015 (SCI-Expanded)
- XI. Comparison of Two Anesthetic Methods for Intravitreal Ozurdex Injection  
KARABAŞ V. L., Ozkan B., Kocer C. A., Altintas O., PİRHAN ŞAHİN D., YÜKSEL N.  
JOURNAL OF OPHTHALMOLOGY, vol.2015, 2015 (SCI-Expanded)
- XII. Comparison of the effects of subconjunctival and topical anti-VEGF therapy (bevacizumab) on experimental corneal neovascularization.  
Ozdemir O., Altintas O., ALTINTAŞ L., Ozkan B., Akdag C., YÜKSEL N.  
Arquivos brasileiros de oftalmologia, vol.77, no.4, pp.209-13, 2014 (SCI-Expanded)
- XIII. Plasma antiphospholipid antibody levels in age-related macular degeneration  
Ozkan B., KARABAŞ V. L., Altintas O., Tamer G. S., YÜKSEL N., Caglar Y.  
CANADIAN JOURNAL OF OPHTHALMOLOGY-JOURNAL CANADIEN D OPHTALMOLOGIE, vol.47, no.3, pp.264-268, 2012 (SCI-Expanded)
- XIV. Pattern of open eye injuries in northwest Turkey: a retrospective study.  
ALTINTAŞ L., Altintas O., YÜKSEL N., PİRHAN ŞAHİN D., Ozkan B., Caglar Y.  
Ulusal travma ve acil cerrahi dergisi = Turkish journal of trauma & emergency surgery : TJTES, vol.17, no.4, pp.334-9, 2011 (SCI-Expanded)
- XV. Discriminating ability of optical coherence tomography data in staging glaucomatous damage  
YÜKSEL N., Altintas O., Ozkan B., Karadag S., Caglar Y.  
CANADIAN JOURNAL OF OPHTHALMOLOGY-JOURNAL CANADIEN D OPHTALMOLOGIE, vol.44, no.3, pp.297-302, 2009 (SCI-Expanded)
- XVI. Why do patients with improved visual acuity drop out of RGP contact lens use? Ten-year follow-up results in patients with scarred corneas.  
Ozkan B., Elibol O., Yuksel N., Altintas O., Karabas L., Caglar Y.  
European journal of ophthalmology, vol.19, no.3, pp.343-7, 2009 (SCI-Expanded)
- XVII. Correlation between retinal morphological and functional findings and clinical severity in Parkinson's disease  
Altintas O., Iseri P., Orzkan B., Caglar Y.  
DOCUMENTA OPHTHALMOLOGICA, vol.116, no.2, pp.137-146, 2008 (SCI-Expanded)
- XVIII. The effect of caffeine on retrobulbar hemodynamics  
Oezkan B., Yueksel N., ANIK Y., Altintas O., Demirci A., Caglar Y.

- CURRENT EYE RESEARCH, vol.33, no.9, pp.804-809, 2008 (SCI-Expanded)
- XIX. **Efficacy of skin cooling and EMLA cream application for pain relief of periocular botulinum toxin injection**  
 Elibol O., Ozkan B., Hekimhan P. K., Caglar Y.  
 OPHTHALMIC PLASTIC AND RECONSTRUCTIVE SURGERY, vol.23, no.2, pp.130-133, 2007 (SCI-Expanded)
- XX. **Effect of vancomycin, teicoplanin, and cefuroxime on Staphylococcus epidermidis adherence to intraocular lenses**  
 Ozkan B., Karabas V., Gundes S., Altintas O., Etiler N., Caglar Y.  
 JOURNAL OF CATARACT AND REFRACTIVE SURGERY, vol.31, no.9, pp.1814-1820, 2005 (SCI-Expanded)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Evaluation of Corneal Langerhans Cells in Patients with Thyroid Ophthalmopathy by Using an in vivo Confocal Microscopy**  
 YILMAZ TUĞAN B., ÖZKAN B., AKDAĞ KOÇER Ç.  
 TOD 2020 SANAL ULUSAL KONGRESİ VE CANLI CERRAHİ BİLEŞİK TOPLANTISI, Turkey, 9 - 13 December 2020
- II. **Toksoplazma Koryoretinitine Bağlı Geniş Seröz Makula Dekolmanı: Olgu Sunumu**  
 YILMAZ TUĞAN B., KARABAŞ V. L., ÖZKAN B.  
 TOD 53. ULUSAL KONGRESİ, Turkey, 6 - 10 November 2019
- III. **Correlation of Visual Recovery and Increased IS/OS Reflectivity After Successful Macular Hole Surgery**  
 YILMAZ TUĞAN B., KARABAŞ V. L., YENİHAYAT F., SUBAŞI S., KESİM E., ÖZKAN B.  
 TOD 53. ULUSAL KONGRESİ, Turkey, 6 - 10 November 2019
- IV. **Diyabetik makula ödeminde subretinal ve kist içi reflektivitenin vitreus sitokin düzeyleri ile ilişkisi**  
 yenihayat f., ÖZKAN B., KASAP M., güzel n., KARABAŞ V. L., PİRHAN D., YÜKSEL N.  
 Türk Oftalmoloji Derneği 50. ULUSAL KONGRESİ, Turkey, 9 - 13 November 2016
- V. **Wyburn Mason Sendromu**  
 PİRHAN D., GÜMÜŞTAŞ S., Karaman S., TAŞ M. M., ÖZKAN B.  
 Türk Oftalmoloji Derneği 49. Ulusal Kongresi, İstanbul, Turkey, 4 - 08 November 2015
- VI. **ADJUSTABLE SUTURES IN CHILDREN**  
 YILMAZ B., ALTINTAŞ Ö., TOPRAK M., PİRHAN D., ÖZKAN B.  
 37th MEETING OF THE EUROPEAN STRABISMOLOGICAL ASSOCIATION, Italy, 1 - 04 October 2015
- VII. **In vivo confocal microscopy evaluation of corneal Langerhans cells in Graves orbitopathy**  
 ALTINTAŞ Ö., ÖZKAN B., Akdag Ç., YÜKSEL N., Karabaş V. L.  
 XXXIII Congress of the ESCRS, Barcelona, Spain, 5 - 09 September 2015
- VIII. **Diyabetik Hastalarda Fako-Vitrektomi Sonuçları (Bu bildiri makale olarak yayınlanmıştır-YÖK ID No: 4240041-Eser No: D3)**  
 ETUŞ H., KARABAŞ V. L., ÖZKAN B., ALTINTAŞ Ö., YÜKSEL N., CAGLAR Y.  
 TOD 39. ULUSAL OFTALMOLOJİ KONGRESİ, Turkey, 17 - 21 September 2005
- IX. **Hidrosefalinin eşlik etmesine göre konjenital nöral tüp kapanma defekti olan pediatrik olgularda retina morfolojisi ve fonksiyonlarının korelasyonu.**  
 ETUŞ H., ALTINTAŞ Ö., İŞERİ P., ETUŞ V., ÖZKAN B., CAGLAR Y.  
 TOD 39. ULUSAL KONGRESİ, Turkey, 17 - 21 September 2005
- X. **Hareketli prefoveal vitreus kisti.**  
 KARABAŞ V. L., ÖZKAN B., ÇELİK M., YÜKSEL N., ETUŞ H., CAGLAR Y.  
 TOD 39. ULUSAL KONGRESİ, Turkey, 17 - 21 September 2005

### Memberships / Tasks in Scientific Organizations

TOD Vitreoretinal Cerrahi Birimi, Member, 2018 - Continues, Turkey

Türk Oftalmoloji Derneği, Member, 2000 - Continues, Turkey

## Scientific Refereeing

EXPERIMENTAL EYE RESEARCH, SCI Journal, May 2022

FRONTIERS IN PHARMACOLOGY, Journal Indexed in SSCI, October 2021

EUROPEAN JOURNAL OF OPHTHALMOLOGY, Journal Indexed in SSCI, September 2021

RETİNA-VİTREUS, National Scientific Refreed Journal, January 2021

## Scientific Consultations

Gebze Technical University, Project Consultancy, Acibadem Mehmet Ali Aydinlar University, School Of Medicine, Department Of Surgecal Sciences, Turkey, 2022 - Continues

Roche, Scientific Consultancy, Acibadem Mehmet Ali Aydinlar University, School Of Medicine, Department Of Surgecal Sciences, Turkey, 2022 - Continues

## Metrics

Publication: 45

Citation (WoS): 445

Citation (Scopus): 504

H-Index (WoS): 9

H-Index (Scopus): 10

## Congress and Symposium Activities

TOD Bahar Sempozyumu, Panelists, İstanbul, Turkey, 2023

56. TOD Ulusal Kongresi, Invited Speaker, Antalya, Turkey, 2022

TOD Mart Sempozyumu, Invited Speaker, Trabzon, Turkey, 2022

TOD Sanal 5. Canlı Cerrahi Sempozyumu, Invited Speaker, Ankara, Turkey, 2022

55. TOD Ulusal Kongresi, Invited Speaker, Antalya, Turkey, 2021