

MEDJ

www.medeniyetmedicaljournal.org

Owner

Dean, M. Tayyar KALCIOĞLU
Istanbul Medeniyet University
Faculty of Medicine

Editor in Chief

M. Tayyar KALCIOĞLU
Department of Otorhinolaryngology,
Istanbul Medeniyet University
mtkalcioğlu@hotmail.com
ORCID: 0000-0002-6803-5467

Assistant Editors

Alpertunga KARA
Department of History of Medicine and
Medical Ethics, Istanbul Medeniyet University
alpertunga.kara@medeniyet.edu.tr
ORCID: 0000-0002-2031-3042

Administrative Office

Istanbul Medeniyet University
Dumlupınar Mahallesi, D-100 Karayolu No:98,
34000 Kadıköy, İstanbul, Türkiye

Language Editors

Gürkan KAZANCI
Ümit ÖZKAN

Cover Design

Binnaz KALCIOĞLU

Graphics

Arzu Deniz ÖLMEZ
Ayfer ERYEŞİL

Publication Coordinator

Hira Gizem FİDAN

Publication type: Periodical

Finance

Istanbul Medeniyet University Scientific
Research Fund

Yayınevi / Publisher

LOGOS YAYINCILIK TİC. A.Ş.
Yıldız Posta Cad. Sinan Apt. No. 36 D. 66/67
34349 Gayrettepe-İstanbul

Tel: (0212) 288 05 41
Faks: (0212) 211 61 85
mail: logos@logos.com.tr
web: www.logosyayincilik.com



ISSN 2149-2042
e-ISSN 2149-4606

MEDENİYET MEDICAL JOURNAL

Formerly *Göztepe Tıp Dergisi*

Year/Yıl 2020
Volume/Cilt 35
Issue/Sayı 3

Medeniyet Medical Journal is the official journal of Istanbul Medeniyet University

It is published four times a year (March, June, September, December).

MEDJ is an open Access, free and peer-reviewed journal

PubMed Central (PMC), indexed in Scopus, DOAJ, EBSCO,
Turkish Citation Index and ULAKBİM Turkish Medical Database

www.medeniyetmedicaljournal.org

©All rights are reserved. Rights to the use and reproduction, including in the electronic media, of all communications, papers, photographs and illustrations appearing in this journal belong to Istanbul Medeniyet University. Reproduction without prior written permission of part or all of any material is forbidden. The journal complies with the Professional Principles of the Press.

This journal is printed on acid-free paper

Responsible Manager

M. Tayyar KALCIOĞLU

Section Editors

Nazan AKSOY
Department of Pathology
Sağlık Bilimleri University
aksnaz@yahoo.com
ORCID: 0000-0002-9585-5567

Başak ATALAY
Department of Radiology
Istanbul Medeniyet University
basak_hosgoren@yahoo.com
ORCID: 0000-0003-3318-3555

Mustafa ÇALIŞKAN
Department of Cardiology,
Istanbul Medeniyet University
caliskandr@gmail.com
ORCID: 0000-0001-7417-4001

Bülent EROL
Department of Urology,
Istanbul Medeniyet University
erolulent@yahoo.com
ORCID: 0000-0003-2402-3373

Fehim ESEN
Department of Ophthalmology,
Istanbul Medeniyet University
fehimesen@yahoo.com
ORCID: 0000-0002-9948-5575

Mustafa HASBAHÇECİ
Department of General Surgery
Medical Park Fatih Hospital
hasbahceci@yahoo.com
ORCID: 0000-0002-5468-5338

Cem MALAKCIOĞLU
Department of Medical Education
Istanbul Medeniyet University
cemmalakcioglu@gmail.com
ORCID: 0000-0002-4200-0936

Fahri OVALI
Department of Pediatrics,
Istanbul Medeniyet University
fahri.oval@medeniyet.edu.tr
ORCID: 0000-0002-9717-313X

Oğuz POYANLI
Department of Orthopaedic,
Istanbul Medeniyet University
opoyanli@gmail.com
ORCID: 0000-0002-4126-0306

Biostatistics Editor

Handan ANKARALI
Department of Biostatistics and Medical
Informatics Istanbul Medeniyet University
handanankarali@gmail.com
ORCID: 0000-0002-3613-0523

Hasan GÜÇLÜ
Department of Biostatistics and Medical
Informatics Istanbul Medeniyet University
ORCID: 0000-0003-3582-9460

Esra KÜRÜM
Department of Epidemiology of Microbial
Diseases, Yale University, Connecticut/USA
esrakurum@gmail.com

International Advisory Board

- Asma ABDULLAH
*Department of Otorhinolaryngology,
Kebangsaan Malaysia University, Kuala
Lumpur, Malaysia*
- Kurtuluş AÇIKSARI
*Department of Emergency Medicine,
Istanbul Medeniyet University, Istanbul,
Turkey*
- İbrahim AKALIN
*Department of Medical Genetics, Istanbul
Medeniyet University, Istanbul, Turkey*
- Necmettin AKDENİZ
*Department of Dermatology, Istanbul
Medeniyet University, Istanbul, Turkey*
- Orhan ALİMOĞLU
*Department of Surgery, Istanbul
Medeniyet University, Istanbul, Turkey*
- Abadan Khan AMITAVA
*Department of Ophthalmology, Aligarh
Muslim University, Aligarh, India*
- Sertaç ARSLANOĞLU
*Department of Pediatrics, Istanbul
Medeniyet University, Istanbul, Turkey*
- Gökhan ATIŞ
*Department of Urology, Istanbul
Medeniyet University, Istanbul, Turkey*
- İsmet AYDOĞDU
*Department of Hematology, Celal Bayar
University, Manisa, Turkey*
- Abdullah AYDIN
*Department of Pathology, Istanbul
Medeniyet University, Istanbul, Turkey*
- Ebuzer AYDIN
*Department of Cardiovascular Surgery,
Istanbul Medeniyet University, Istanbul,
Turkey*
- İbrahim Halil BAHÇECİOĞLU
*Department of Gastroenterology, Fırat
University, Elazığ, Turkey*
- İrfan BARUTCU
*Department of Cardiology, Medipol
University, Istanbul, Turkey*
- Berna TERZİOĞLU BEBİTOĞLU
*Department of Pharmacology, Istanbul
Medeniyet University, Istanbul, Turkey*
- Evren BURAKGAZI DALKILIC
*Department of Neurology, Rowan Univ
Camden, New Jersey, USA*
- Ahmet BURAKGAZI
*Department of Neurology, Carilion Clinic,
Virginia, USA*
- Erkan CEYLAN
*Department of Chest Disease, Medical
Park Goztepe Hospital, Istanbul, Turkey*
- Serhat ÇITAK
*Department of Psychiatry, Istanbul
Medeniyet University, Istanbul, Turkey*
- Sebahattin CUREOĞLU
*Department of Otolaryngology,
Minnesota University, Minnesota, USA*
- Turhan ÇAŞKURLU
*Memorial Hospital,
Istanbul, Turkey*
- Mustafa Baki ÇEKMEN
*Department of Biochemistry, Istanbul
Medeniyet University, Istanbul, Turkey*
- Süleyman DAŞDAĞ
*Department of Biophysics, Istanbul
Medeniyet University, Istanbul, Turkey*
- Berna DEMİRCAN TAN
*Department of Medical Biology, Istanbul
Medeniyet University, Istanbul, Turkey*
- Ahmet DEMİROK
*Department of Ophthalmology, Istanbul
Medeniyet University, Istanbul, Turkey*
- Rıza DURMAZ
*Department of Microbiology and Clinical
Microbiology, Yıldırım Beyazid University,
Ankara, Turkey*
- Yasser ELSAYED
*Department of Pediatrics, Manitoba
University, Manitoba, Canada*
- İrfan ESENKAYA
Medicalpark Hospital, Istanbul, Turkey
- Fuad FARES
*Departments of Human Biology and
Molecular Genetics, Haifa University,
Haifa, Israel*
- Melek GÜRA
*Department of Anesthesiology and
Reanimation, Istanbul Medeniyet
University, Istanbul, Turkey*
- Mehmet Salih GÜREL
*Department of Dermatology, Istanbul
Medeniyet University, Istanbul, Turkey*
- Ramil M. HASHIMLI
*Department of Otorhinolaryngology,
State Advanced Training Institute for
Doctors Named After A. Aliyev, Baku,
Azerbaijan*
- Şamil HIZLI
*Department of Pediatric Gastroenterology,
Ankara Yıldırım Bayazıt University, Ankara,
Turkey*
- Langston HOLLY
*Department of Neurosurgery, California
University, California, USA*
- John HUGHES
*Department of Biostatistics, Minnesota
University, Minnesota, USA*
- Armağan İNCESULU
*Department of Otorhinolaryngology,
Osmangazi University, Eskişehir, Turkey*
- Serkan İNCEOĞLU
*Department of Orthopedic Surgery, Loma
Linda University, California, USA*
- Afitap İÇAĞASIOĞLU
*Department of Physical Therapy and
Rehabilitation, Goztepe Research and
Training Hospital, Istanbul, Turkey*
- Ferruh Kemal İŞMAN
*Department of Biochemistry, Istanbul
Medeniyet University, Istanbul, Turkey*
- Herman JENKINS
*Department of Otorhinolaryngology,
Colorado Denver University, Colorado, USA*

- Jeffrey JOSEPH
Department of Anesthesiology, Thomas Jefferson University, Philadelphia, USA
- Bayram KAHRAMAN
Department of Radiology, Malatya Park Hospital, Malatya, Turkey
- Ulugbek S. KHASANOV
Department of Otorhinolaryngology, Tashkent Medical Academy, Tashkent, Uzbekistan
- Mohd Khairi
Department of Otorhinolaryngology - Head and Neck Surgery, Sains Malaysia University, Kota Bharu, Kelantan, Malaysia
- Hasan KOÇOĞLU
Department of Anesthesiology and Reanimasyon, Istanbul Medeniyet University, Istanbul, Turkey
- Mücahide Esra KOÇOĞLU
Department of Medical Microbiology, Istanbul Medeniyet University, Istanbul, Turkey
- Murat KORKMAZ
Department of Gastroenterology, Okan University, Istanbul, Turkey
- Haytham KUBBA
Department of Pediatric Otorhinolaryngology, Royal Hospital for Sick Children, Glasgow, Scotland
- Tunç KUTOĞLU
Department of Anatomy, Istanbul Medeniyet University, Istanbul, Turkey
- Makhmadamin MAKHMUDNAZAROV
Department of Otorhinolaryngology, Tajik State Medical University Named Abuali Ibn Sino, Dusanbe, Tajikistan
- Banu MESCİ
Department of Diabetes and Endocrinology, Istanbul Medeniyet University, Istanbul, Turkey
- Maria MILKOV
Department of Otorhinolaryngology, Medical University of Varna, Varna, Bulgaria
- Norazmi Mohd NOR
Department of Molecular Immunology, Universiti Sains Malaysia, Kelantan, Malaysia
- Aytekin OĞUZ
Department of Internal Medicine, Istanbul Medeniyet University, Istanbul, Turkey
- Halit OĞUZ
Department of Ophthalmology, Istanbul Medeniyet University, Istanbul, Turkey
- Elif OĞUZ
Department of Pharmacology, Istanbul Medeniyet University, Istanbul, Turkey
- İsmail OKAN
Department of Surgery, Gaziosmanpaşa University, Tokat, Turkey
- Behzat ÖZKAN
Department of Pediatrics, Istanbul Medeniyet University, Istanbul, Turkey
- Güler ÖZTÜRK
Department of Physiology, Istanbul Medeniyet University, Istanbul, Turkey
- Muhammed Beşir ÖZTÜRK
Department of Aesthetic, Plastic, and Reconstructive Surgery, Istanbul Medeniyet University, Istanbul, Turkey
- Ramiza Ramza RAMLI
Department of Otorhinolaryngology, Sains Malaysia University, Kelantan, Malaysia
- Goh Bee SEE
Institute of Ear, Hearing and Speech, Kebangsaan Malaysia University, Kuala Lumpur, Malaysia
- Ayşe SELIMOĞLU
Department of Pediatric Gastroenterology, Memorial Hospital, Ataşehir, Istanbul, Turkey
- John W SIMON
Department of Ophthalmology, Albany Medical Center, Albany, USA
- Yavuz ŞİMŞEK
Department of Obstetrics and Gynecology, YS Clinic, Kırıkkale, Turkey
- Muhammet TEKİN
Department of Otorhinolaryngology, Medistate Hospital, Istanbul, Turkey
- Ayşen TOPALKARA
Department of Ophthalmology, Cumhuriyet University, Sivas, Turkey
- İlyas TUNCER
Department of Gastroenterology, Istanbul Medeniyet University, Istanbul, Turkey
- Pelin ULUOCAK
Sir William Dunn School of Pathology, University of Oxford, Oxford, UK
- Lokman UZUN
Department of Otorhinolaryngology, Medical Park Pendik Hospital, Istanbul, Turkey
- Hatice SINAV USLU
Department of Nuclear Medicine, Istanbul Medeniyet University, Istanbul, Turkey
- Hanifi SOYLU
Department of Pediatrics, Selcuk University, Konya, Turkey
- Milan STANKOVIC
Department of Otorhinolaryngology, Nis University, Nis, Serbia
- R. Gül TIRYAKI SÖNMEZ
Department of Health Science, The City University of New York, New York, USA
- Haluk VAHABOĞLU
Department of Microbiology and Infectious Diseases, Istanbul Medeniyet University, Istanbul, Turkey
- Cemil YAĞCI
Department of Radiology, Ankara University, Ankara, Turkey
- Hatice YILMAZ
Department of Adolescent and Adult Psychiatry, Rowan Univ Camden, New Jersey, USA
- Sancak YUKSEL
Department of Otorhinolaryngology, Texas Health Science University, Houston, USA
- Zuraida Zainun ZAINUN
Balance Unit Audiology Programme, Sains Malaysia University, Kota Bharu Kelantan, Malaysia