

Volume 33 Issue 2 April 2024

#### **Page 140**

Measuring Muscle Mass to Identify Sarcopenia Via Bioelectrical Impedance Analysis in Hemodialysis: Importance of Timing and Equipment Choice

#### **Page 153**

Effects of Air Pollution,
Ozone, and Sulfur
Dioxide on Kidney
Oxidative-Stress
Enzymes, Histopathology,
and Apoptosis Gene
Expressions in Rats





#### **Editor in Chief**

#### Rümeyza Kazancıoğlu

m Vakif University School of Medicine, İstanbul, Türkiye Division of Nephrology, Bezmia

#### **Editors**

#### Ali Düzova

Division of Pediatric Nephrology, Hacettepe University, School of Medicine, Ankara, Türkiye

#### Ferruh Artunç

Division of Nephrology, Tuebingen University, Tuebingen, Germany

#### Meltem Gürsu

Division of Nephrology, Bezmialem Vakif University School of Medicine, İstanbul, Türkiye

#### Özkan Güngör

Division of Nephrology, Kahramanmaraş Sütçü İmam University School of Medicine, Kahramanmaraş, Türkiye

#### Savaş Öztürk

Division of Nephrology, İstanbul University School of Medicine, İstanbul, Türkiye

#### Sedat Üstündağ

Division of Nephrology, Trakya University School of Medicine, Edirne, Türkiye

#### Sena Ulu

Department of Nephrology, Bahçeşehir University Faculty of Medicine, Istanbul, Türkiye

#### **Previous Editors in Chief** Bülent Tokgöz

Division of Nephrology Erciyes University School of Medicine, Kayseri, Türkiye

#### Ekrem Erek

İstanbul University Cerrahpaşa School of Medicine, İstanbul, Türkiye

#### Emel Akoğlu

Marmara University School of Medicine, İstanbul, Türkiye

#### Cengiz Utaş

Erciyes University School of Medicine, Kayseri, Türkiye

#### Bülent Altun

Hacettepe University School of Medicine, Ankara,

#### **Bioistatistics Editor** Gökmen Zararsız

Division of Biostatistics and Informatics, Erciyes University School of Medicine, Kayseri, Türkiye

#### **Editorial Board**

#### Ali Abu-Alfa

Division of Nephroloy, American University of Beirut Faculty of Medicine, Beirut, Lebanon

#### Demet Eğlenoğlu Alaygut

Division of Nephrology, İzmir Health S University, Tepecik Training and Research Hospital, İzmir, Türkiye

#### Bülent Altun

Division of Nephrology, Hacettepe University School of Medicine, Ankara, Türkiye

#### Mustafa Arıcı

Division of Nephrology, Hacettepe University School of Medicine, Ankara, Türkiye

#### **Turgay Arinsoy**

Division of Nephrology, Gazi University School of Medicine, Ankara, Türkiye

#### Kenan Ateş

Division of Nephrology, Ankara University School of Medicine, Ankara, Türkiye

#### Jonas Axelsson

Division of Clinical Immunology, Karolinska University Hospital, Stockholm, Sweden

#### Peter Barany

Division of Clinical Science, Intervention and Technology, Stockholm Sweden

#### Vecihi Batuman

Division of Nephrology, Tulane Univeristy School of Medicine, Los Angeles, USA

#### Juan Jesus Carrero

Department of Medical Epidemiology and Biostatistics, Karolinska Institute, Solna, Sweden

#### Taner Çamsarı

Division of Nephrology, Dokuz Eylül University School of Medicine, İzmir, Türkiye

#### Ülver Derici

Division of Nephrology, Gazi University School of Medicine, Ankara, Türkiye

#### Soner Duman

Division of Nephrology, Ege University School of Medicine, İzmir, Türkiye

#### Tevfik Ecder

Division of Nephrology, Istanbul Bilim University School of Medicine, İstanbul, Türkiye

#### **Ethics Editor**

#### Berna Arda

Division of History of Medicine and Medical Ethics, Ankara University School of Medicine, Ankara, Türkiye

#### Fevzi Ersoy

Division of Nephrology, Akdeniz University School of Medicine, Antalya, Türkiye

#### Mohamed Hassanein

Division of Nephrology and Hypertension, University of Mississippi Medical Center, Jackson, MS, USA

#### Talat Alp İkizler

Division of Nephrology, Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee, USA

#### Mehmet Kanbay

Division of Nephrology, Koç University School of Medicine, İstanbul, Türkiye

#### Norbert Lameire

Division of Nephrology, Ghent University School of Medicine and Health Sciences, Ghent, Belgium

#### Bengt Lindholm

Department of Clinical Sciences, Intervention and Technology (CLINTEC), Karolinska Institute,

#### Francesca Mallamaci

Division of Nephrology, Hypertension and Renal Transplantation, Ospedali Riuniti, Reggio Cal, Italy

#### Ercan Ok

Division of Nephrology, Ege University School of Medicine, İzmir, Türkiye

#### Alberto Ortiz

Division of Nephrology, University Autonoma of Madrid, Madrid, Spain

#### Nurhan Seyahi

Division of Nephrology, İstanbul University Cerrahpaşa School of Medicine, İstanbul, Türkiye

#### Kamil Serdengeçti

Emeritus Professor, Division of Nephrology, İstanbul University Cerrahpaşa School of Medicine, İstanbul, Türkiye

#### Mehmet Şükrü Sever

Department of Internal Medicine, Division of Nephrology, İstanbul Faculty of Medicine, Istanbul University, İstanbul, Türkiye

#### Lale Sever

Division of Pediatric Nephrology, Department of Pediatrics, Istanbul University-Cerrahpasa School of Medicine, İstanbul, Türkiye

#### Siren Sezer

Division of Nephrology, Atılım University School of Medicine, Ankara, Türkiye

#### Gültekin Süleymanlar

Division of Nephrology, Akdeniz University School of Medicine, Antalya, Türkiye

#### Peter Stenvinkel

Division of Renal Medicine, Karolinska Institutet, Solna, Sweden

#### Vladimir Tesar

Department of Nephrology, 1st Faculty of Medicine and General University Hospital, Charles University, Prague, Czech Republic

#### Bülent Tokgöz

Division of Nephrology Erciyes University School of Medicine, Kayseri, Türkiye

#### Zeki Tonbul

Division of Nephrology, Necmettin Erbakan University School of Medicine, Konya, Türkiye

#### Hüseyin Töz

Division of Nephrology, Ege University School of Medicine, Ankara, Türkiye

#### Serhan Tuğlular

Division of Nephrology, Marmara University School of Medicine, İstanbul, Türkiye

#### Aydın Türkmen

Division of Nephrology, İstanbul University School of Medicine, İstanbul, Türkiye

#### Kültigin Türkmen

Division of Nephrology, Necmettin Erbakan University, Meram School of Medicine, Konya, Türkiye

#### Raymond Vanholder

Division of Nephrology, University Hospital Ghent, Ghent, Belgium

#### Abdulgaffar Vural

Emeritus Professor, Gülhane Military Academy School of Medicine, Ankara, Türkiye Alaattin Yıldız

#### Division of Nephrology, İstanbul University

School of Medicine, İstanbul, Türkiye

#### Carmine Zoccali

Nephrology, Dialysis and Transplantation Unit, Ospedali Riuniti, Reggio Calabria, Italy



**General Manager** Ali ŞAHİN

**Finance Coordinator** Sinem FEHİME KOZ

**Journal Managers** Deniz KAYA Irmak BERBEROĞLU **Publications Coordinators** 

Alara ERGIN İrem ÖZMEN Derva AZER Nisanur ATICI Seref Mert GÜCÜN Web Specialist Erdem ERCİVAN

**Project Assistant** Batuhan KARA

Editor in Chief: Rümeyza Kazancıoğlu Address: Division of Nephrology, Bezmialem Vakif University School of Medicine, İstanbul, Türkiye E-mail: info@turkjnephrol.org

**Publishing Services: AVES** Address: Büyükdere Cad. 199/6, 34394, Şişli, İstanbul, Türkiye Phone: +90 212 217 17 00 E-mail: info@avesyayincilik.com Web page: avesyayıncılık.com



#### **About the Turkish Journal of Nephrology**

Turkish Journal of Nephrology is a peer reviewed, open access, online-only journal published by the Turkish Society of Nephrology.

Turkish Journal of Nephrology is a quarterly journal that is published in English in January, April, July, and October.

#### **Journal History**

As of January 2019, the journal has changed its title to Turkish Journal of Nephrology.

#### Current Title (2019-)

Turkish Journal of Nephrology EISSN: 2667-4440

#### **Previous Title (1995-2018)**

Turkish Nephrology, Dialysis and Transplantation Journal

ISSN: 1300-7718

#### **Abstracting and Indexing**

Turkish Journal of Nephrology is covered in the following abstracting and indexing databases; Web of Science-Emerging Sources Citation Index, Scopus, DOAJ, EBSCO, Gale, CNKI, TUBITAK ULAKBIM TR Index.

All content published in the journal is permanently archived in Portico.

#### Aims, Scope, and Audience

Turkish Journal of Nephrology aims to publish studies of the highest scientific and clinical value, and encourages the submission of high-quality research that advances the understanding and treatment on the fields of nephrology, dialysis and transplantation.

Turkish Journal of Nephrology covers a wide range of topics related to etiology, pathogenesis and treatment of kidney diseases, hypertension, acid-base and electrolyte disorders, dialysis therapies, kidney transplantation. In addition, studies focusing on socioeconomic aspects of kidney diseases and their treatments are also of interest to the journal.

Turkish Journal of Nephrology publishes original articles, reviews, letters to the editor, editorial comments, opinion articles, and images in nephrology that are prepared in accordance with the ethical guidelines.

Turkish Journal of Nephrology also contributes to the literature by publishing summaries from the Annual Registry Report of the Turkish Society of Nephrology. The society has been collecting data on end-stage kidney disease since 1990 that has turned into the most comprehensive regional archive. Turkish Journal of Nephrology aims to share this regional data with the international community.

The target audience of the journal includes specialists and professionals working and interested in all disciplines of nephrology and kidney care.

#### **Open Access Policy**

Turkish Journal of Nephrology is an open access publication.

Starting on January 2019, all content published in the journal is licensed under the Creative Commons Attribution (CC BY) 4.0 International License which allows third parties to use the content for non-commercial purposes as long as they give credit to the original work. This license allows for the content to be shared and adapted for non-commercial purposes, promoting the dissemination and use of the research published in the journal.

The content published before January 2019 was licensed under a traditional copyright, but the archive is still available for free access.

All published content is available online, free of charge at https://turkjnephrol.org/EN.

#### **Copyright Policy**

A Copyright Agreement and Acknowledgement of Authorship form should be submitted with all manuscripts. By signing this form, authors agree that the article, if accepted for publication by the Turkish Journal of Nephrology, will be licensed under a Creative Commons Attribution (CC BY) 4.0 International License which allows third parties to read, copy and redistribute the material in any format and adapt the material for any purpose immediately upon publication by giving the appropriate credit to the original work.

#### **Publication Fee Policy**

Turkish Journal of Nephrology is funded by the Turkish Society of Nephrology. Authors are not required to pay any fees during the evaluation and publication process.

You can find the current version of the Instructions to Authors at https://turkjnephrol.org/en/instructions-to-authors-1013



#### **Contents**

#### Report

Mind the Gap in Kidney Care: Translating What We Know into what we do Valerie A. Luyckx, Katherine R. Tuttle, Dina Abdellatif, Ricardo Correa-Rotter, Winston W.S. Fung, Agnès Haris, Li-Li Hsiao, Makram Khalife, Latha A. Kumaraswami, Fiona Loud, Vasundhara Raghavan, Stefanos Roumeliotis, Marianella Sierra, Ifeoma Ulasi, Bill Wang, Siu-Fai Lui, Vassilios Liakopoulos, Alessandro Balducci, for the World Kidney Day Joint Steering Committee	122
Original Article	
Current Status of Kidney Replacement Therapy in Türkiye: A Summary of 2022 Turkish Society of Nephrology Registry Report Nurhan Seyahi, İsmail Kocyigit, Necmi Eren, Halil Zeki Tonbul, Erhan Tatar, Zulfukar Yilmaz, Ebru Gok Oguz, Ercan Turkmen, Kenan Ates	134
Review	
Measuring Muscle Mass to Identify Sarcopenia Via Bioelectrical Impedance Analysis in Hemodialysis: Importance of Timing and Equipment Choice Serdar Özkök, Gülistan Bahat	140
Report	
Current Induction Therapy Strategies and Anti-T Lymphocyte Globulin Usage in Kidney Transplantation: Consensus-Based Recommendations by a Turkish Expert Panel Ülkem Çakır, Ayhan Dinçkan, Nayim Karadoğan, Kenan Keven, Hüseyin Koçak, Serkan Kubilay Koç, Siren Sezer, Hüseyin Töz, Aydın Türkmen, Celalettin Usalan, Alaattin Yıldız	145
Original Articles	
Effects of Air Pollution, Ozone, and Sulfur Dioxide on Kidney Oxidative-Stress Enzymes, Histopathology, and Apoptosis Gene Expressions in Rats Sorayya Kheirouri, Dariush Shanehbandi, Monireh Khordadmehr, Mohammad Alizadeh, Fateme Eskandari Vaezi, Azin Behrouzi Kahlan, Sara Abedi, Mehran Mesgari Abbasi	153
Analysis of Crush Syndrome Patients With and Without Acute Kidney Injury during the 2023 Kahramanmaraş Earthquake: Experience of a Tertiary Referral Center from Türkiye Kenan Turgutalp, Ahmet Alper Kıykım, Özgür Akın Oto, Serap Demir, Deniz Çobanoğlu, İyed Oğuz, Reyhan Ezgi Ünver, İrem Akın Şen, Caner Ö Mehmet Şükrü Sever, Kahramanmaraş Earthquake Study Group	161 Özer,
Serum Soluble Urokinase Plasminogen Activator Receptor Levels in Resistant Hypertension Nergiz Bayrakcı, Gülsüm Özkan, Sonat Pınar Kara, Ahsen Yılmaz, Aliye Çelikkol	173
Post-COVID-19 Outcomes of Patients with Primary Glomerular Diseases: A Nationwide Controlled Study Savaş Öztürk, Serhat Karadağ, Mustafa Arıcı, Aydın Türkmen, Kenan Turgutalp, Nimet Aktaş, Rümeyza Kazancıoğlu, Tolga Kuzu, İlyas Öztürk, Zeki Aydın, Yavuz Ayar, Rüya Mutluay, Fatma Ayerden Ebinç, Musa Pınar, Taner Bastürk, Fatih Yılmaz, Ayça İnci, Sinan Trabulus, Zeynep Ural, İrem Pembegül, Alper Azak, Fatih Palit, Metin Ergül, Selma Alagöz, Seda Şafak, Esra Akçalı, Sena Ulu, Özkan Güngör, Elif Arı Bakır, Ali Rıza Odabaş, Nurhan Seyahi, Alaattin Yıldız, Kenan Ateş	179
Kidney Expression of Trefoil Factor 3 Is Not Associated with Kidney Survival in Immunoglobulin A Nephropathy: A Preliminary Study Ebru Aşıcıoğlu, Derya Oztas, Dilek Barutçu Ataş, Deniz Filinte, Murat Tuğcu, Arzu Velioğlu, Mehmet Koç, İzzet Hakkı Arıkan	188





Screening for the Frequency of Fabry Disease in Patients Followed Up in the Nephrology Outpatient Clinic Seray Saray, Aygül Çeltik, Gökhan Atay, Gülay Aşçı, Meltem Seziş Demirci, Mümtaz Yılmaz	194
Fabry Disease Screening in Patients with Proteinuria or Chronic Kidney Disease and Defining a Novel Mutation: A Single-Center Experience Bülent Demirelli, Burcu Boztepe, Melike Betül Öğütmen	199
Editorial Comment	
Fabry Disease: The Role of Screening for Early Diagnosis Faruk Turgut	208
Original Articles	
Comparing the Effect of Clonazepam Tablets with Noma Syrup (Lettuce Leaf Extract) on the Severity of Insomnia in Hemodialysis Patients Arash Azad Farzin, Masoumeh Bagheri-Nesami, Javad Setareh, Mahmood Moosazadeh, Fatemeh Espahbodi, Assie Jokar	210
Vitamin D Receptor Polymorphisms in Overweight/Obese Chronic Kidney Disease Patients on Dialysis Gökhan Bağcı, Can Hüzmeli, Binnur Bağcı, Ferhan Candan	217
Outcome and Risk Factors for Mortality in Peritoneal Dialysis Patients: 22 Years of Experience in a Turkish Center Erol Demir, Yaşar Çalışkan, Yagmur Goksoy, Fadime Sevgi Sacli, Ummu Mutlu, Aydın Türkmen, Semra Bozfakioglu	223
Letter to the Editor	
Coronavirus Disease 2019 Infection in a Gitelman Syndrome Patient: A Case Report Kadir Intas, Gulay Ulusal Okyay	229
Images in Nephrology	
Immunofluorescence Negative Bullous Pemphigoid in a Hemodialysis Patient with Recurrent Ischemic Stroke Rishabh Gupta, Gerry George Mathew, Jayaprakash Varadharajan, Sreedhar Sailapathy	231
Erratum	
Frratum	23/