



BALKAN MEDICAL JOURNAL

The Official Journal of Trakya University School of Medicine

Volume: 36

Issue: 5

September 2019

Original Articles

- Effects of Exercise on Empathy- and Anxiety-Like Behaviors
Oğuz Yüksel et al.
- Effects of Salmon Calcitonin on Monoamines in Periaqueductal Gray
Kaveh Rahimi et al.
- Effects of Probiotics on Chemerin and Metabolic Syndrome Parameters
Menşure Nur Çelik and Mehtap Ünlü Söğüt
- Cost Efficiency of Stents in Coronary Artery Disease
Ferda Işıklıçelik et al.

Brief Report

- MGMT Promoter Methylation in Patients with Rectal Adenocarcinoma After Chemoradiotherapy Treatment
Jaime A. Oliver et al.

Case Report

- West Nile Virus in Turkey
Barış Arslan et al.

Clinical Images

- Renal Infarction in a Young Man
Zehra Eren and Hakan Koyuncu
- Unusual Presentation of Multi-organ Hydatid Cysts in a Child
İsa Cam et al.
- Epidermolytic Hyperkeratosis as a Challenging Diagnosis
Hala M. El Hanbuli et al.

Letters to the Editor

- Prenatal Ultrasound and Corrosion Casting of Large Vessels in fetal Congenital Heart Disease
Peng An et al.
- In Regard to Otelea et al.
Muhammet Gürdoğan and Servet Altay
- In Reply to Gürdoğan and Altay
Marina Ruxandra Otelea et al.

ISSN 2146-3123 • EISSN 2146-3131



galenos
yayınevi

Indexed in SCI Expanded and PubMed/MEDLINE • Citation Abbreviation: **Balkan Med J**

www.balkanmedicaljournal.org

Cover Design: Zehra Atabey

Cover Image: It is pictured in the photograph of Behiç Günalan.

(Sultan Bayezid II Complex: One of the Earliest Medical Schools, 1488, Edirne)

Editor-in-Chief

Zafer KOÇAK, MD

Department of Radiation Oncology, Trakya University School of Medicine, Edirne, Turkey

Honorary Editor

Ahmet ULUGÖL, MD

Department of Pharmacology, Trakya University School of Medicine, Edirne, Turkey

Deputy Editors

Dinçer AVLAN, MD

Department of Pediatric Surgery, Division of Pediatric Urology, Trakya University School of Medicine, Edirne, Turkey

Okan ÇALIYURT, MD

Department of Psychiatry, Trakya University School of Medicine, Edirne, Turkey

Hakan ERBAŞ, PhD., MSc

Department of Biochemistry, Trakya University School of Medicine, Edirne, Turkey

Mustafa İNAN, MD

Department of Pediatric Surgery, Trakya University School of Medicine, Edirne, Turkey

Burcu TOKUÇ, MD., PhD

Department of Public Health, Trakya University School of Medicine, Edirne, Turkey

Ufuk USTA, MD

Department of Pathology, Trakya University School of Medicine, Edirne, Turkey

Associate Editors

Alper AKÇALI, MD

Department of Medical Microbiology, Çanakkale Onsekiz Mart University School of Medicine, Çanakkale, Turkey

Servet ALTAY, MD

Department of Cardiology, Trakya University School of Medicine, Edirne, Turkey

Armağan ALTUN, MD., PhD

Department of Cardiology, Başkent University İstanbul Hospital, İstanbul, Turkey

Murat BİRTANE, MD

Department of Physical Medicine and Rehabilitation, Trakya University School of Medicine, Edirne, Turkey

Mustafa ÇIKIRIKÇIOĞLU, MD., PhD., FETCS

Division of Cardiovascular Surgery, Department of Surgery, University Hospitals of Geneva, Geneva, Switzerland

Cem ÇOPUROĞLU, MD

Department of Orthopedics, Trakya University School of Medicine, Edirne, Turkey

Meletios A. DIMOPOULOS, MD., PhD

Department of Clinical Therapeutics, Hematology/Oncology, University of Athens School of Medicine, Athens, Greece

Dragoslava DJERIC, MD., PhD

Department of Otolaryngology, University of Belgrade School of Medicine, Belgrade, Serbia

Rıdvan DURAN, MD

Department of Pediatrics, Trakya University School of Medicine, Edirne, Turkey

Hakan EMMUNGİL, MD

Department of Rheumatology, Trakya University School of Medicine, Edirne, Turkey

Taner K. ERDAĞ, MD

Department of Otolaryngology, Dokuz Eylül University School of Medicine, İzmir, Turkey

Suat ERDOĞAN, PhD., MSc

Department of Medical Biology, Trakya University School of Medicine, Edirne, Turkey

Marco FIORE, PhD

Department of Molecular Biology, Institute of Cellular Biology and Neurobiology, CNR, Rome, Italy

A. Serdar GÖZEN, MD

Department of Urology, SLK-Kliniken, University of Heidelberg, Heidelberg, Germany

Özgür GÜNDÜZ, MD

Department of Pharmacology, Trakya University School of Medicine, Edirne, Turkey

Hakan GÜRKAN, MD., PhD

Diagnostics Center for Genetic Diseases, Trakya University School of Medicine, Edirne, Turkey

Osman Nuri HATİPOĞLU, MD

Department of Pulmonary Diseases, Trakya University School of Medicine, Edirne, Turkey

Marko HAWLINA, MD., PhD

Department of Ophthalmology, University of Ljubljana School of Medicine, Ljubljana, Slovenia

Irena HOCEVAR-BOLTEZAR, MD., PhD

Department of Foniatri and Audiology, University of Ljubljana School of Medicine, Ljubljana, Slovenia

Edin HUSARIC, MD., PhD

Department of Pediatric Surgery, University Clinical Center, Tuzla, Bosnia and Herzegovina

Yasemin KARAL, MD

Department of Pediatrics, Trakya University School of Medicine, Edirne, Turkey

Darko KASTELAN, MD., PhD

Department of Endocrinology, University of Zagreb School of Medicine, Zagreb, Croatia

Cumhur KILINÇER, MD., PhD

Department of Neurosurgery, Trakya University School of Medicine, Edirne, Turkey

Shima MEHRABIAN, MD., PhD

Department of Neurology, University Hospital Alexandrovska, Sofia, Bulgaria

Pavle MIKLIC, MD

Department of Neurosurgery, University of Zagreb School of Medicine, Zagreb, Croatia

Sevtap HEKİMOĞLU ŞAHİN, MD

Department of Anesthesiology and Reanimation, Trakya University School of Medicine, Edirne, Turkey

Milan STANKOVIC, MD., PhD

Department of Otolaryngology, University of Nis School of Medicine, Nis, Serbia

İsmail Barış TÜRKBEY, MD

Department of Radiology, National Cancer Institute, NIH, Bethesda MD, USA

Yeşim Hülya UZ, MD

Department of Histology and Embryology, Trakya University School of Medicine, Edirne, Turkey

Sedat ÜSTÜNDAĞ, MD

Department of Nephrology, Trakya University School of Medicine, Edirne, Turkey

Irena VELCHEVA, MD., PhD

Department of Neurology, Medical University, Sofia, Bulgaria

Stanislav YANEV, MD., PhD

Department of Pharmacology, Bulgarian Academy of Sciences, Sofia, Bulgaria

Asistant Associate Editors

Zehra Nihal DOLGUN, MD

Department of Gynecology and Obstetrics, Trakya University School of Medicine, Edirne, Turkey

Hande GÜÇLÜ, MD

Department of Ophthalmology, Trakya University School of Medicine, Edirne, Turkey

A. Cem İBİŞ, MD

Department of General Surgery, İstanbul University School of Medicine, İstanbul, Turkey

Selma KORKMAZ, MD

Department of Dermatology, Süleyman Demirel University School of Medicine, Isparta, Turkey

Elif Gülsüm ÜMİT, MD

Department of Hematology, Trakya University School of Medicine, Edirne, Turkey

Ethics Editor

Berna ARDA, MD., PhD

Department of History of Medicine and Medical Ethics, Ankara University School of Medicine, Ankara, Turkey

Biostatistics Editor

Necdet SÜT, PhD

Department of Biostatistics and Informatics, Trakya University School of Medicine, Edirne, Turkey

Web Editor

Okan ÇALIYURT, MD

Department of Psychiatry, Trakya University School of Medicine, Edirne, Turkey

Editorial Advisory Board

Eyüp Sabri AKARSU, MD

Department of Pharmacology, Ankara University School of Medicine, Ankara, Turkey

Serhan ALKAN, MD

Department of Pathology, Cedars Sinai Medical Center, Los Angeles, CA, USA

Christian APFEL, MD, PhD

Department of Anesthesiology and Perioperative Care, University of California San Francisco, San Francisco, CA, USA

Stavros J. BALOYANNIS, MD, PhD

Department of Neurology, Aristotle University of Thessaloniki School of Medicine, Thessaloniki, Greece

George N. CHALDAKOV, MD, PhD

Department of Cell Biology, Medical University of Varna, Varna, Bulgaria

Anthony H. DICKENSON, MD, PhD

Department of Pharmacology, University College London, London, UK

Dan M. FLISS, MD, PhD

Department of Maxillofacial and Skullbase Surgery, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

English Editing

ENAGO / New York, United States

C. Michael GIBSON MD, MS

Interventional Cardiologist, Beth Israel Deaconess Medical Center, Professor of Medicine, Harvard Medical School, Boston, MA, United States

Ahmet GÜRAKAR, MD

Department of Hepatology, Johns Hopkins School of Medicine, Baltimore, MD, USA

Todor KANTARDJIEV, MD, PhD

Department of Parasitology and Microbiology, National Centre Infectious and Parasitic Diseases, Bulgaria

Fahrettin KELEŞTİMUR, MD

Department of Endocrinology, Erciyes University School of Medicine, Kayseri, Turkey

George KOLIOS, MD, PhD

Department of Pharmacology, Democritus University of Thrace School of Medicine, Alexandroupolis, Greece

Ana MARUSIC, MD, PhD

Department of Anatomy & Research in Biomedicine and Health, University of Split, Split, Croatia

Ranko MLADINA, MD, PhD

Department of Rhinology, University of Zagreb School of Medicine, Zagreb, Croatia

Eugene N. MYERS, MD, FACS, FRCS Edin (Hon)

Department of ORL, Head-Neck & Maxillofacial Surgery, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA

Jean-Marc NABHOLTZ, MD, PhD

Clinical and Translational Research Division, Jean Perrin Comprehensive Cancer Centre, Clermont-Ferrand, France

Keiji OGUMA, MD, PhD

Department of Bacteriology, Okayama University School of Medicine, Okayama, Japan

Metin ÖZDEMİRLİ, MD

Professor of Pathology, MedStar Georgetown University Hospital Washington DC, United States

Mustafa TEKİN, MD

Division of Clinical and Translational Genetics, Dr. John T. Macdonald Foundation Department of Human Genetics, University of Miami Miller School of Medicine, Miami, FL, USA

Juan A. TOVAR, MD

Department of Pediatric Surgery, La Paz University Hospital, Madrid, Spain

Mark D. WALTERS, MD, PhD

Department of Gynecology and Obstetrics, Cleveland Clinic, Cleveland, OH, USA

Enver ZEREM, MD, MS, PhD

Department of Gastroenterology, University Clinical Center, Tuzla, Bosnia and Herzegovina

Please refer to the journal's webpage (www.balkanmedicaljournal.org) for "Editorial Policy", "Instructions to Authors" and "Instructions to Reviewers".

The Balkan Medical Journal and/or its editors are members of ICMJE, COPE, WAME, CSE and EASE, and follow their recommendations. The Balkan Medical Journal is indexed in Science Citation Index Expanded (Web of Science), Journal Citation Reports, PubMed/MEDLINE, PubMed Central, Scopus, EMBASE, DOAJ, Chemical Abstracts, CINAHL, EBSCO, J-Gate, GALE, ProQuest, Türk Medline, Türkiye Atif Dizini, IdealOnline, Global Health, UDL-EDGE, Hinari, GOALI, ARDI, OARE, AGORA and TÜBİTAK ULAKBİM TR Index.

The journal is printed on an acid-free paper.

Owner: Muzaffer Demir On Behalf of Trakya University School of Medicine

Responsible Manager: Zafer KOÇAK

 Galenos Publishing House
Owner and Publisher
Erkan Mor
Publication Coordinator
Burak Sever
Web Coordinators
Turgay Akpınar
Finance Coordinator
Sevinç Çakmak
Graphics Department
Ayda Alaca
Çiğdem Birinci
Gülşah Özgül

Project Coordinators
Eda Koluksa
Esra Semerci
Günay Selimoğlu
Hatice Balta
Zeynep Altındağ
Project Assistants
Duygu Yıldırım
Gamze Aksoy
Melike Eren
Saliha Tuğçe Güdücü
Research&Development
Mert Can Köse
Mevlûde Özlem Akgüney

Publisher Contact
Address: Molla Gürani Mah. Kaçamak Sk. No: 21/1 34093 İstanbul, Turkey
Phone: +90 (212) 621 99 25 Fax: +90 (212) 621 99 27
E-mail: info@galenos.com.tr/yayin@galenos.com.tr Web: www.galenos.com.tr
Publisher Certificate Number: 14521
Printing at: Trakya Üniversitesi Matbaası
Edirne Teknik Bilimler M.Y.O Sarayıcı Yerleşkesi, 22020 Yeni İmaret, Edirne, Turkey
Phone: +90 (284) 224 02 83
Printing Date: August 2019
ISSN: 2146-3123 E-ISSN: 2146-3131
International scientific journal published bimonthly.

CONTENTS

Original Articles

- 257 **Regular Aerobic Voluntary Exercise Increased Oxytocin in Female Mice: The Cause of Decreased Anxiety and Increased Empathy-Like Behaviors**
Oğuz Yüksel, Mehmet Ateş, Servet Kızıldağ, Zeynep Yüce, Başar Koç, Sevim Kandış, Güven Güvendi, Aslı Karakılıç, Hikmet Gümüş, Nazan Uysal; İzmir, Turkey
- 263 **Effects of Salmon Calcitonin on the Concentrations of Monoamines in Periaqueductal Gray in Formalin Test**
Kaveh Rahimi, Javad Sajedianfard, Ali Akbar Owji; Shiraz, Iran
- 270 **Probiotics Improve Chemerin Levels and Metabolic Syndrome Parameters in Obese Rats**
Menşure Nur Çelik, Mehtap Ünlü Söğüt; Ankara, Samsun, Turkey
- 276 **An Analysis of Cost-Effectiveness of Stents Used in the Treatment of Coronary Artery Disease**
Ferda Işıklıçelik, İsmail Ağırbaş, Cansın Tulunay Kaya; Ankara, Turkey

Brief Report

- 283 **O6-methylguanine-DNA Methyltransferase Promoter Methylation in Patients with Rectal Adenocarcinoma After Chemoradiotherapy Treatment: Clinical Implications**
Jaime A. Oliver, Jaime Gómez-Millán, Jose A. Medina, Laura Cabeza, Gloria Perazzoli, Cristina Jimenez-Luna, Kevin Doello, Raúl Ortiz; Belfast, UK, Granada, Málaga, Spain

Case Report

- 287 **Neuroinvasive West Nile Virus Disease in an Elderly Patient with Diffuse Large B-Cell Lymphoma Treated with R-CHOP Therapy: A Case Report**
Barış Arslan, Hasan Murat Gündüz, Nurdan Ünlü, Gökhan Çavuş, Dilek Menemenlioğlu; Adana, Ankara, Turkey

Clinical Images

- 290 **Renal Infarction in a Young Man**
Zehra Eren, Hakan Koyuncu; Antalya, İstanbul, Turkey
- 292 **Unusual Presentation of Multi-organ Hydatid Cysts in a Child**
İsa Cam, Özgür Çakır, Ayşe Tekin Yılmaz, Samet Genez, Yonca Anık; Kocaeli, Turkey
- 294 **Epidermolytic Hyperkeratosis: A Challenging Pathology for Clinical Correlation**
Hala M. El Hanbuli, Mohamed H. Elmahdi, Marwa A. Salem; Fayoum, Egypt

Letters to the Editor

- 296 **Fetal Complex Congenital Heart Disease Diagnosed Using Prenatal Ultrasound and Corrosion Casting for Large Vessels: A Report for Authentic Teaching by True Representation**
Peng An, Yu Wang, Li-min Xing, Wei Feng; Hubei, China
- 298 **In Regard to Otelea et al.**
Muhammet Gürdoğan, Servet Altay; Edirne, Turkey
- 299 **In Reply to Gürdoğan and Altay**
Marina Ruxandra Otelea, Adrian Streinu-Cercel, Cristian Băicus, Maria Nitescu; Bucharest, Romania