

ISSN: 2753-2658

ELECTRONIC JOURNAL OF MEDICAL AND DENTAL STUDIES



September 2023
Volume 13
Issue 3

Published by: **Modestum**

Publication Office: Modestum LTD, 29 Gildredge Road, Eastbourne, East Sussex, BN21 4RU, United Kingdom

Serbia Office: Modestum DOO, Bulevar Mihajla Pupina 10i, 3. Sprat, Stan 133, Belgrade, SERBIA

Phone: +381 61 6600107

Email: publications@modestum.co.uk

Publisher: <https://www.modestum.co.uk/>

Journal Web: <https://www.ejmds.com/>

© 2011-2023. All rights reserved by Modestum. Copyright for Open Access Content is Retained by Authors. Also, authors continue to hold the copyrights of their own papers by acknowledging that their papers are originally published in the Electronic Journal of Medical and Dental Studies. Hence, articles published are licensed under a “Creative Commons Attribution 4.0 International License.”

ISSN: 2753-2658 (Online)

ELECTRONIC JOURNAL OF MEDICAL AND DENTAL STUDIES

September 2023

Volume 13

Issue 3



This page is intentionally left blank

ELECTRONIC JOURNAL OF MEDICAL AND DENTAL STUDIES

Electronic Journal of Medical and Dental Studies is a multidisciplinary peer-reviewed journal publishing articles in the fields of medical and dental sciences. **Electronic Journal of Medical and Dental Studies** is published quarterly (March, June, September and December) by Modestum LTD.

Electronic Journal of Medical and Dental Studies encourages submissions from all authors throughout the world. Manuscripts are judged by two experts solely on the basis of their contribution of original data, ideas and their presentation. All manuscripts must comply with Instructions to Authors. The following articles will be considered for publication:

- original and review articles,
- editorials,
- short communication, and
- letters to the editor.

Submitted manuscripts must not have been published, accepted for publication or be under consideration elsewhere. Investigation on human subjects should conform to the guidelines noted in the World Health Organization Chronicle 1976; 30: 360-362. All articles will be critically reviewed by the editor and members of the editorial or advisory board of the journal within 2 months, but longer delays are sometimes unavoidable. Full details may be found in the section of Instructions to Authors.

Authors are referred to the statement on uniform requirements for manuscripts submitted to biomedical journals prepared by an international committee of medical journal editors. (Br Med J 1982; 284: 1766-1770, Ann Intern Med 1982; 96: 766-771.)

Aims and Scope

Electronic Journal of Medical and Dental Studies (EJMDS) aims to disseminate new knowledge and information on different aspects and disciplines of medical and dentistry, including prevention, diagnosis, and management of medical, general medicine, dental, oral, and craniofacial disorders and related epidemiology, pathophysiology, and genetics.

The journal publishes high quality articles in the following areas:

Basic Medical Sciences

- Anatomy
- Biophysics
- Biostatistics and Medical Informatics
- Physiology
- Histology and Embryology
- Parasitology
- Medical Biochemistry
- Clinical Biochemistry
- Medical Biology
- Medical Education
- Medical Microbiology

- Medical Mycology
- Medical Virology
- Medical History and Ethics

Clinical Medical Sciences

- Emergency Medicine
- Child Health and Diseases
- Child Endocrinology
- Pediatric Infectious Diseases
- Children's Gastroenterology
- Child Genetic Diseases
- Pediatric Chest Diseases
- Pediatric Hematology and Oncology
- Child Immunology Diseases
- Child Allergy Diseases
- Pediatric Cardiology
- Child Metabolic Diseases
- Child Nephrology
- Child Neurology
- Child Rheumatology
- Pediatric Intensive Care
- Neonatology
- Social Pediatrics
- Child and Adolescent Psychiatry
- Skin and Venereal Diseases
- Infectious Diseases and Clinical Microbiology
- Physical Medicine and Rehabilitation
- Chest Diseases
- Public Health
- Occupational Diseases
- Internal Medicine
- Endocrinology and Metabolic Diseases
- Gastroenterology
- Geriatrics
- Hematology
- Immunology and Allergy
- Nephrology
- Oncology
- Rheumatology
- Social Medicine
- Cardiology
- Neurology
- Clinical Neurophysiology
- Nuclear Medicine

- Radiation Oncology
- Radiology
- Mental Health and Diseases
- Consultation and Liaison
- Sports Medicine
- Medical Pharmacology
- Medical Genetics

Surgical Medical Sciences

- Anesthesiology and Reanimation
- Brain and Nerve Surgery
- Pediatric Surgery
- General Surgery
- Family Planning and Infertility Research
- Gynecology Oncology
- Perinatology
- Cardiovascular Surgery
- Pediatric Cardiovascular Surgery
- Orthopedics and Traumatology
- Hand Surgery
- Plastic Reconstructive and Aesthetic Surgery
- Medical Pathology

Dentistry

- General dentistry
- Pediatric dentistry
- Geriatric dentistry
- Aesthetic and restorative dentistry
- Periodontics
- Endodontics
- Oral and maxillofacial surgery
- Orofacial pain
- Orthodontics
- Dental and maxillofacial prosthesis
- Preventive and social dentistry
- Special care dentistry
- Hospital dentistry
- Laser therapy
- Homeopathy in dentistry
- Basic research in dentistry

Indexing and Abstracting

Electronic Journal of Medical and Dental Studies is currently indexed/included in:

- Google Scholar
- ROAD
- Scilit
- Crossref

All articles are archived by:

- The British Library
- Portico

Manuscript Submission

Authors should submit their manuscripts online via <https://www.editorialpark.com/ejmds>. Manuscripts are accepted only in Word format.

EDITORIAL BOARD

Editor-in-Chiefs

Dr. Marcos Roberto Tovani-Palone, Ribeirão Preto Medical School, University of Sao Paulo, Ribeirão Preto, BRAZIL
E-mail: marcos_palone@hotmail.com

Dr. Omer Akyol, Texas Heart Institute, USA

Dr. Natalia Zarbailov, Department of Family Medicine, State University of Medicine and Pharmaceutics „Nicolae Testemițanu", Chisinau, MOLDOVA

Dr. Huseyin Vural, Institute of Molecular Pathobiochemistry, Experimental Gene Therapy and Clinical Chemistry, RWTH University Hospital Aachen, Aachen, GERMANY

Editorial Board

Amir Afshin Khaki, Professor of Medical Embryology & Anatomy, Universität zu Lübeck, GERMANY

Osman Sulak, Uskudar University, TURKEY

İsmihan İlknur Uysal, Necmettin Erbakan University, TURKEY

İsmail Zararsız, Girne American University, CYPRUS

Omer Faruk Hatipoglu, Kindai University, JAPAN

Riad Taha Al-Kasasbeh, Al-Balqa' Applied University, JORDAN

Şefik Dursun, Uskudar University, TURKEY

Servet Kavak, Bakircay University, TURKEY

Beyhan Cengiz, Gazi University, TURKEY

Nadir Kocak, Selcuk University, TURKEY

Davut Pehlivan, USA

Ender Erdoğan, TURKEY

Alparslan Gökçimen, TURKEY

Francesco Carelli, ITALY

Erol Gürpınar, TURKEY

Nazan Karaoğlu, TURKEY

Yeşim Yiğiter Şenol, TURKEY

Natalia Zarbailov, MOLDOVA

Zubeyir Altuntas, USA

Süleyman Durmaz, TURKEY

Türkan Toka Özer, TURKEY

Halil Kıyıcı, TURKEY

Esra Nurullahoğlu Atalık, TURKEY

A Tuncay Demiryürek, TURKEY

Hanefi Özbek, TURKEY

Dr. Fatima Naiyar Siddiqui, Queen Mary University London, London, UK

Email: dr.fatimasiddiki@gmail.com

Dr. Rajay Kamath, University of Michigan School of Dentistry, Michigan, USA

E-mail: kamathrajay@gmail.com

Dr. Erfan Shamsoddin, National Institute for Medical Research Development, Tehran, IRAN

E-mail: erfanshamsoddin@gmail.com

Dr. Shallen Verma, Welcare Hospital and Parkview Hospital, Dubai, UAE

E-mail: shallenverma@hotmail.com

Dr. Morteza Banakar, Tehran University of Medical Sciences, Tehran, IRAN

E-mail: dr.mbanakar@gmail.com

Dr. Valentino Natoli, Department of Dentistry, School of Biomedical and Health Sciences,
European University of Madrid, Madrid, SPAIN

E-mail: valentinonatoliodn@gmail.com

Dr. Nima Farshidfar, School of Dentistry, Shiraz University of Medical Sciences, Shiraz, IRAN

E-mail: n.farshidfar@icloud.com

Dr. Ashek Elahi Noor, Sapporo Dental College & Hospital, Dhaka, BANGLADESH

E-mail: rajjet.elahi@gmail.com

Dr. Fargol Mashhadi Akbar Boojar, Gorgan Medical University, Faculty of Dentistry, Golestan,
IRAN

Email: fargolfarzan@yahoo.com

Dr. Artak Heboyan, Yerevan State Medical University, Yerevan, ARMENIA

E-mail: heboyan.artak@gmail.com

Dr. Azeem Ul Yaqin Syed, King Faisal University, Al Mualimeen, SAUDI ARABIA

E-mail: azeem.ajaz@gmail.com

Editorial Assistant

Aleksandra Piljak, MSc, Modestum DOO

E-mail: aleksandra.piljak@modestum.org

CONTENTS

Original Article

Survey of harmful dyes in food color additives in Algeria

em0106

Djihad Bencherit, Kheira Laoues, Imane Karboua, Mohamed Lounis

<https://doi.org/10.29333/ejmds/13105>