

JCOG

Journal of
Clinical
Obstetrics &
Gynecology

Vol 30 No 4 Year 2020

EDITOR IN CHIEF

Dr. Haldun GÜNER, Prof.
Gazi University Emeritus, Ankara, Turkey

EDITOR

Dr. Çağrı GÜLÜMSER, Assoc. Prof.
University of Health Sciences, Ankara, Turkey

ETHICS EDITOR

Dr. Ayşegül ERDEMİR, Prof.
Maltepe University, İstanbul, Turkey

CONSULTANTS IN BIOSTATISTICS

Mehmet Onur KAYA, PhD, *Fırat University, Elazığ, Turkey*
Selcen YÜKSEL, PhD, *Ankara Yıldırım Beyazıt University, Ankara, Turkey*

ENGLISH LANGUAGE EDITOR

Dr. Çiğdem GEREKLİOĞLU, Assoc. Prof., *Çukurova University, Adana, Turkey*

INTERNATIONAL EDITORIAL BOARD

Dr. Laure ADRIEN, *The International Federation of Gynecology and Obstetrics, Port-au-Prince, Haiti*
Dr. Aizura Syafinaz AHMAD ADLAN, Assoc. Prof., *University of Malaya, Kuala Lumpur, Malaysia*
Dr. Mahmoud S AHMED, Prof., *The University of Texas Medical Branch, Galveston, TX USA*
Dr. Ayman AL HENDY, Prof., *Georgia University, Augusta, GA, USA*
Dr. Shamma Thwaiini AL-INIZI, *South Tyneside Foundation Trust, Tyne and Wear, UK*
Dr. María Mercedes Perez ALONZO, *Hospital San Juan de Dios Av. San Juan de Dios, Miranda, Venezuela*
Dr. Mert Ozan BAHTİYAR, Assoc. Prof., *Yale New Haven Hospital, New Haven, CT, USA*
Dr. Neerja BHARTI, Assoc. Prof., *PGIMER, Chandigarh, India*
Dr. John BONNAR, Prof., *St James's Hospital, Dublin, Ireland*
Dr. Chinmoy K. BOSE, *Netaji Subhash Chandra Bose Cancer Research Institute, Bengal, India*
Dr. Linda R. CHAMBLISS, *St. Joseph's Hospital and Medical Center, Phoenix, AZ, USA*
Dr. Christopher CHEN, Prof., *Annexe Block Gleneagles Hospital, Singapore*
Dr. Angelos DANIILIDIS, Assoc. Prof., *Aristotle University of Thessaloniki, Greece*
Dr. Martin Jose DURAN-ROSADO, Prof., *San Francisco de Campeche, México*

Dr. Aisha ELBAREG, Prof., *Misurata University, Misrata, Libya*
Dr. Kamal Osman ELMALLAH, Prof., *Ocala, Florida, USA*
Dr. Simone FERRERO, Assoc. Prof., *University of Genoa, Genoa, Italy*
Dr. Ian S. FRASER, Prof., *The University of Sydney, Sydney, Australia*
Dr. Rahamatou Madeleine GARBA, Prof., *The International Federation of Gynecology and Obstetrics, Niger*
Dr. Astrit Malush GASHI, *University Clinical Center of Kosovo, Pristine, Kosova*
Dr. Klaus GOESCHEN, Prof., *Kvinno Center, Hannover, Germany*
Dr. Kristine Juul HARE, Assoc. Prof., *Copenhagen University Hospital, Copenhagen, Denmark*
Dr. Jargalsaikhan BADARCH, *Mongolian National University, Ulaanbaatar, Mongolia*
Dr. Sarmad KHUNDA, Prof., *The International Federation of Gynecology and Obstetrics, Baghdad, Iraqi*
Dr. Michael KLENTZE, Prof., *Klentze Institutes, Munich, Germany*
Dr. Ertuğ KOVANCI, Prof., *Fannin Fertility Center, Houston, TX, USA*
Dr. Seung Yup KU, Prof., *Seoul National University, Seoul, South Korea*
Dr. Timothy Lim Yong KUEI, Prof., *The International Federation of Gynecology and Obstetrics, Singapore*
Dr. Jamila Fazil KURBANOVA, Prof., *Azerbaijan Health Ministry, Baku, Azerbaijan*
Dr. Pralhad KUSHTAGI, Prof., *Kasturba Medical College, Mangalore, India*
Dr. Dimitris LOUTRADIS, Prof., *National and Kapodistrian University of Athens, Athens, Greece*
Dr. Jaideep MALHOTRA, Prof., *The Federation of Obstetric & Gynecological Societies of India, Mumbai, India*
Dr. Daniel MURESAN, Prof., *Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca, Romania*
Dr. Velda MUSHANGWE MTISI, *Midlands State University, Gweru, Zimbabwe*
Dr. Peter PETROS, Prof., *University of Western Australia, Western, Australia*
Dr. Vorapong PHUPONG, Prof., *Chulalongkorn University, Bangkok, Thailand*
Dr. Orvieto RAOUL, Prof., *Tel Aviv University, Tel Aviv, Israel*
Dr. Gian Carlo Di RENZO, Prof., *Santa Maria della Misericordia University, Perugia, Italy*
Dr. Uki RETNO, *Sebelas Maret University Dr. Moewardi General Hospital, Surakarta, Indonesia*
Dr. Ertan SARIDOĞAN, Prof., *University College London Hospitals, London, UK*
Dr. Jalid SEHOULI, Prof., *Berlin University, Berlin, Germany*
Dr. Florin STAMATIAN, Prof., *The International Federation of Gynecology and Obstetrics, Cluj- Napoca, Romania*
Dr. Muna Abdulrazak TAHLAK, *The International Federation of Gynecology and Obstetrics, United Arab Emirates*
Dr. Hugh S. TAYLOR, Prof., *Yale University, New Haven, CT, USA*
Dr. Andrea TINELLI, *Vito Fazzi Hospital, Lecce LE, Italy*
Dr. Saswati TRIPATHY, Assis. Prof., *SRM Medical College Hospital and Research Centre, Tamil Nadu, India*
Dr. Serdar H URAL, Prof., *The Pennsylvania State University College of Medicine, Philadelphia, PA, USA*
Dr. Kathleen VINCENT, Assoc. Prof., *The University of Texas Medical Branch, Galveston, TX, USA*
Dr. Hanifa WAFIE, *The International Federation of Gynecology and Obstetrics, Kabul, Afghanistan*
Dr. Aly YOUSSEF, *University of Bologna, Bologna, Italy*
Dr. Mehrangiz ZAMANI BONAB, Assoc. Prof., *Hamadan University, Hamadan, Iran*

NATIONAL EDITORIAL BOARD

Dr. Remzi ABALI, Assoc. Prof., *İstanbul, Turkey*
Dr. Derya AKDAĞ CIRIK, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Funda AKPINAR, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Ayşe Nur AKSOY, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*

Dr. İbrahim ALANBAY, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Oluş API, Prof., *Amerikan Hospital, İstanbul, Turkey*
Dr. M. Barış ATA, Prof., *Koç University, İstanbul, Turkey*
Dr. Sebahat ATAR, Prof., *Ankara University, Ankara, Turkey*
Dr. Remzi ATILGAN, Assoc. Prof., *Fırat University, Elazığ, Turkey*
Dr. Rukset ATTAR, Prof., *Yeditepe University, İstanbul, Turkey*
Dr. Çetin AYDIN, Assoc. Prof., *İzmir Katip Çelebi University, İzmir, Turkey*
Dr. Serpil AYDOĞMUŞ, Assoc. Prof., *İzmir Katip Çelebi University, İzmir, Turkey*
Dr. Özcan BALAT, Prof., *Gaziantep University, Gaziantep, Turkey*
Dr. Aykut BARUT, Prof., *Zonguldak Bülent Ecevit University, Zonguldak, Turkey*
Dr. Ali Sertaç BATİOĞLU, Prof., *Uşak University, Uşak, Turkey*
Dr. Rahime BEDİR FINDIK, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. İncim BEZİRCİOĞLU, Assoc. Prof., *İzmir Ekonomi University, İzmir, Turkey*
Dr. Selim BÜYÜKKURT, Prof., *Çukurova University, Adana, Turkey*
Dr. Arif Serhan CEVRIOĞLU, Prof., *Sakarya University, Sakarya, Turkey*
Dr. Gamze Sinem ÇAĞLAR, Prof., *Ufuk University, Ankara, Turkey*
Dr. Eray ÇALIŞKAN, Prof., *İstanbul Okan University, İstanbul, Turkey*
Dr. Yiğit ÇAKIROĞLU, Assoc. Prof., *Acıbadem Hospital, İstanbul, Turkey*
Dr. Aygen ÇELİK, Assoc. Prof., *Maltepe University, İstanbul, Turkey*
Dr. Çetin ÇELİK, Prof., *Selçuk University, Konya, Turkey*
Dr. Cihan ÇETİN, Assoc. Prof., *Bahçeşehir University, İstanbul, Turkey*
Dr. Kadir ÇETINKAYA, Assoc. Prof., *Ankara City Hospital, Ankara, Turkey*
Dr. Aydın ÇORAKÇI, Prof., *Kocaeli University, Kocaeli, Turkey*
Dr. Cem DANE, Assoc. Prof., *University of Health Sciences, İstanbul, Turkey*
Dr. Ramazan DANSUK, Prof., *Biruni University, İstanbul, Turkey*
Dr. Bülent DEMİR, Assoc. Prof., *Çanakkale Onsekiz Mart University, Çanakkale, Turkey*
Dr. Selda DEMİRCAN SEZER, Prof., *Aydın Adnan Menderes University, Aydın, Turkey*
Dr. Berna DİLBAZ, Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Serdar DİLBAZ, Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Talat Umut Kutlu DİLEK, Prof., *Acıbadem University, İstanbul, Turkey*
Dr. Melike DOĞANAY, Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Mehmet DOLANBAY, Assoc. Prof., *Erciyes University, Kayseri, Turkey*
Dr. Özgür DÜNDAR, Prof., *Kadıköy Florence Nightingale Hospital, İstanbul, Turkey*
Dr. Meryem EKEN, Assoc. Prof., *İstanbul Yeni Yüzyıl University, İstanbul, Turkey*
Dr. Koray ELTER, Prof., *Trakya University, Edirne, Turkey*
Dr. Cihangir Mutlu ERCAN, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Ayşe Seval ERDİNÇ, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Ahmet Mete ERGENOĞLU, Assoc. Prof., *Ege University, İzmir, Turkey*
Dr. Arif Aktuğ ERTEKİN, Prof., *Aydın Adnan Menderes University, Aydın, Turkey*
Dr. Sertaç ESİN, Assoc. Prof., *Başkent University, Ankara, Turkey*
Dr. Ali GEDİKBAŞI, Assoc. Prof., *University of Health Sciences, İstanbul, Turkey*
Dr. Orhan GELİŞEN, Assoc. Prof., *Medisun Hospital, Ankara, Turkey*
Dr. Aslı GÖKER, Assoc. Prof., *Manisa Celal Bayar University, Manisa, Turkey*
Dr. Hale GÖKSEVER ÇELİK, Assoc. Prof., *University of Health Sciences, İstanbul, Turkey*
Dr. Abdülaziz GÜL, Prof., *Van Yüzüncü Yıl University, Van, Turkey*

Dr. İsmail GÜLER, Assoc. Prof., *Gazi University, Ankara, Turkey*
Dr. Hacer Cavidan GÜLERMAN, Prof., *University of Health Sciences, Ankara, Turkey*
Dr. İbrahim GÜLHAN, Assoc. Prof., *University of Health Sciences, İzmir, Turkey*
Dr. İsmet GÜN, Assoc. Prof., *University of Health Sciences, İstanbul, Turkey*
Dr. Melih Atahan GÜVEN, Prof., *Acıbadem University, İstanbul, Turkey*
Dr. Kadir GÜZİN, Prof., *Kahramanmaraş Sütçü İmam University, Kahramanmaraş, Turkey*
Dr. Berna HALİLOĞLU PEKER, Prof., *Maltepe University, İstanbul, Turkey*
Dr. Recep HAS, Prof., *İstanbul University, İstanbul, Turkey*
Dr. Neşe Gül HİLALİ, Assoc. Prof., *Harran University, Şanlıurfa, Turkey*
Dr. Hasan Ali İNAL, Assoc. Prof., *University of Health Sciences, Konya, Turkey*
Dr. Ümit İNCEBOZ, Prof., *İzmir, Turkey*
Dr. Metin İNGEÇ, Prof., *Atatürk University, Erzurum, Turkey*
Dr. Mine KANAT PEKTAŞ, Assoc. Prof., *Afyonkarahisar University of Health Sciences, Afyonkarahisar, Turkey*
Dr. Mustafa KARA, Prof., *Kırşehir Ahi Evran University, Kırşehir, Turkey*
Dr. Osman Fadıl KARA, Prof., *Amasya University, Amasya, Turkey*
Dr. Ateş KARATEKE, Prof., *İstanbul Medeniyet University, İstanbul, Turkey*
Dr. Salih Burçın KAVAK, Assoc. Prof., *Fırat University, Elazığ, Turkey*
Dr. Oktay KAYMAK, Assoc. Prof., *Acıbadem University, İstanbul, Turkey*
Dr. Hüseyin Levent KESKİN, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Şadiman KIYAKAÇ ALTINBAŞ, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Mine KİSELİ, Assoc. Prof., *Ufuk University, Ankara, Turkey*
Dr. İdris KOÇAK, Prof., *Ondokuz Mayıs University, Samsun, Turkey*
Dr. Arif KÖKÇÜ, Prof., *Medical Park University, Samsun, Turkey*
Dr. Mehmet Faruk KÖSE, Prof., *Acıbadem University, İstanbul, Turkey*
Dr. Banu KUMBAK AYGÜN, Prof., *İstanbul Aydin University, İstanbul, Turkey*
Dr. Zehra KURDOĞLU, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Ümran KÜÇÜKGÖZ GÜLEÇ, Assoc. Prof., *Çukurova University, Adana, Turkey*
Dr. Rauf MELEKOĞLU, Assoc. Prof., *İnönü University, Malatya, Turkey*
Dr. Özlem MORALOĞLU TEKİN, Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Muhittin Tamer MUNGAN, Prof., *YüksekJİhtisas University, Ankara, Turkey*
Dr. İptisam İpek MÜDERRİS, Prof., *Erciyes University, Kayseri, Turkey*
Dr. Ercüment MÜNGEN, Prof., *VM Medical Park Hospital, İstanbul, Turkey*
Dr. Mehmet Armağan OSMANAĞAOĞLU, Prof., *Karadeniz Teknik University, Trabzon, Turkey*
Dr. Pelin ÖCAL, Prof., *İstanbul University-Cerrahpaşa, İstanbul, Turkey*
Dr. Gökalp ÖNER, Assoc. Prof., *Acıbadem University, Kayseri, Turkey*
Dr. Murat ÖZ, Assoc. Prof., *University of Health Sciences, Ankara, Turkey*
Dr. Emel Ebru ÖZÇİMEN, Prof., *Başkent University, Konya, Turkey*
Dr. Selçuk ÖZDEN, Prof., *Sakarya University, Sakarya, Turkey*
Dr. Emre ÖZGÜ, Assoc. Prof., *Acıbadem University, Ankara, Turkey*
Dr. Seçil ÖZKAN, Prof., *Gazi University, Ankara, Turkey*
Dr. Zehra Sema ÖZKAN, Assoc. Prof., *Kırıkkale University, Kırıkkale, Turkey*
Dr. Zeynep ÖZTÜRK İNAL, Assoc. Prof., *University of Health Sciences, Konya, Turkey*
Dr. Emre Göksan PABUÇCU, Assoc. Prof., *Ufuk University, Ankara, Turkey*
Dr. Recai PABUÇCU, Prof., *Ufuk University, Ankara, Turkey*
Dr. Özlem PATA, Prof., *Acıbadem University, İstanbul, Turkey*

Dr. Muhammet Erdal SAK, Prof., Harran University, Şanlıurfa, Turkey
Dr. Mehmet SAKINCI, Assoc. Prof., Akdeniz University, Antalya, Turkey
Dr. Muzaffer SANCI, Assoc. Prof., University of Health Sciences, İzmir, Turkey
Dr. Cem Yaşar SANHAL, Assoc. Prof., Akdeniz University, Antalya, Turkey
Dr. Esma SARIKAYA , Prof., Ankara Yıldırım Beyazıt University, Ankara, Turkey
Dr. Niyazi Cenk SAYIN, Prof., Trakya University, Edirne, Turkey
Dr. Belgin SELAM, Assoc. Prof., Acıbadem University, İstanbul, Turkey
Dr. Mekin SEZİK, Prof., Süleyman Demirel University, Isparta, Turkey
Dr. Murat SÖNMEZER, Prof., Ankara University, Ankara, Turkey
Dr. Feride SÖYLEMEZ, Prof., Ankara University, Ankara, Turkey
Dr. Fatih ŞENDAĞ, Prof., Ege University, İzmir, Turkey
Dr. Taylan ŞENOL, Assoc. Prof., University of Health Sciences, İstanbul, Turkey
Dr. Mehmet Baki ŞENTÜRK, Assoc. Prof., Tekirdağ Namık Kemal University, Edirne, Turkey
Dr. Cüneyt Eftal TANER, Assoc. Prof., University of Health Sciences, İzmir, Turkey
Dr. Hüseyin Mete TANIR, Prof., Eskişehir Osmangazi University, Eskişehir, Turkey
Dr. Hamit Alper TANRIVERDİ, Prof., Aydın Adnan Menderes University, Aydın, Turkey
Dr. Ömer Lütfi TAPISIZ, Assoc. Prof., University of Health Sciences, Ankara, Turkey
Dr. Ahmet Başar TEKİN, Prof., Eskişehir Osmangazi University, Eskişehir, Turkey
Dr. İsmail TEMUR, Assoc. Prof., Sanko University, Gaziantep, Turkey
Dr. Abdulkadir TURGUT, Assoc. Prof., İstanbul Medeniyet University, İstanbul, Turkey
Dr. Ayşe Figen TÜRKÇAPAR, Assoc. Prof., Hasan Kalyoncu University, Gaziantep, Turkey
Dr. Abdullah TÜTEN, Assoc. Prof., İstanbul University-Cerrahpaşa, İstanbul, Turkey
Dr. Levent TÜTÜNCÜ, Prof., İstanbul Okan University, İstanbul, Turkey
Dr. Mete Gürol UĞUR, Prof., Gaziantep University, Gaziantep, Turkey
Dr. Mesut Abdülkerim ÜNSAL, Prof., Çanakkale Onsekiz Mart University, Çanakkale, Turkey
Dr. İbrahim Ferhat ÜRÜNSAK, Assoc. Prof., Çukurova University, Adana, Turkey
Dr. Yusuf ÜSTÜN, Prof., University of Health Sciences, Ankara, Turkey
Dr. Gülizar Füsün VAROL, Prof., Trakya University, Edirne, Turkey
Dr. Ahmet YALINKAYA, Prof., Dicle University, Diyarbakır, Turkey
Dr. Ömer Erkan YAPÇA, Assoc. Prof., Atatürk University, Erzurum, Turkey
Dr. Aslı YARCI GÜRSOY, Assoc. Prof., Ufuk University, Ankara, Turkey
Dr. Cenk YAŞA, Assoc. Prof., İstanbul University, İstanbul, Turkey
Dr. Ayşe Filiz YAVUZ, Prof., Ankara City Hospital, Ankara, Turkey
Dr. Gökhan YILDIRIM, Prof., İstanbul Medipol University, İstanbul, Turkey
Dr. Ercan YILMAZ, Assoc. Prof., İnönü University, Malatya, Turkey
Dr. Aşkın YILDIZ, Assoc. Prof., İzmir Katip Çelebi University, İzmir, Turkey
Dr. Nafiye YILMAZ KARAKAŞ, Prof., University of Health Sciences, Ankara, Turkey
Dr. Hasan YÜKSEL, Prof., Aydın Adnan Menderes University, Aydın, Turkey

JCOG

Journal of Clinical Obstetrics & Gynecology

Journal of Clinical Obstetrics & Gynecology (J Clin Obstet Gynecol) is an international periodical published on independent, unbiased, double-blinded and peer-review principles.

Journal of Clinical Obstetrics & Gynecology (J Clin Obstet Gynecol) is a refereed journal.

To send articles to Journal; click on "Online Article Submission" link at www.jcog.com.tr. For consideration, all articles must be submitted online. Articles submitted in other forms will not be considered.

Rules and regulations for manuscript writing; Click on "editorial Policies" link at www.jcog.com.tr.

COMPLETE TITLE OF THE JOURNAL: Journal of Clinical Obstetrics and Gynecology

Online ISSN: 2619-9467

ABBREVIATED TITLE OF THE JOURNAL: J Clin Obstet Gynecol.

PREVIOUS TITLE OF THE JOURNAL: Turkiye Klinikleri Journal of Gynecology and Obstetrics [Online ISSN: 2146-9024]

PUBLICATION TYPE AND PERIODS: Journal of Clinical Obstetrics and Gynecology is published 4 times a year (March, June, September, December)

COPYRIGHT: All articles, drawings, figures and tables published in Journal of Clinical Obstetrics and Gynecology cannot be reproduced in whole or in part without prior written permission from the publisher. Only for scientific purposes summarizing and quotations can be done with the condition of proper citations listed as references. Responsibility of the articles, figures and photos belongs to authors. And advertising parties are fully responsible for their advertisements.

Journal of Clinical Obstetrics and Gynecology cannot be sold by second parties, but will be distributed to persons in the related fields of health through subscriptions.

INDEXED or ABSTRACTED in

- Directory of Open Access Journals (DOAJ)
- EBSCO/Academic Search Complete
- Index Copernicus
- TUBITAK/ULAKBIM-TR Index
- EMBASE
- Scopus
- Turkiye Citation Index
- Turkiye Klinikleri Medical Database

For questions and comments;

Data Processing Department

Phone: +90 312 286 56 56 / 146

E-mail: bilgiislem@turkiyeklinikleri.com

For question regarding manuscripts;

Manuscript Editing Department

Phone: +90 312 286 56 56 / 146

E-mail: yaziisleri@turkiyeklinikleri.com

To subscribe and to reach former issues of Turkiye Klinikleri Journals; click on "Online Subscription" at <http://www.turkiyeklinikleri.com/default/en-index.html>.

To subscribe;

Subscription and Public Relations Department

Phone: +90 312 286 56 56 / 146

E-mail: abone@turkiyeklinikleri.com

To place advertisements;

Marketing Sales-Project Department

Phone: +90 312 286 56 56 / 146

E-mail: pazarlama@turkiyeklinikleri.com

Publication Date: 24.12.2020

PUBLISHING HOUSE-PUBLISHER

On behalf of Ortadoğu Reklam Tanıtım Yayıncılık Turizm Eğitim İnşaat Sanayi ve Ticaret A.Ş.

General Manager:

Prof. Hikmet Akgül, M.D.

Administration Address:

Türkocagi Cad. No:30 06520 Balgat/Ankara/Turkey

Phone : +90 312 286 56 56

Fax : +90 312 220 04 70

e-mail : info@turkiyeklinikleri.com

web : www.turkiyeklinikleri.com



Turkiye Klinikleri