



TURKISH JOURNAL OF OBSTETRICS AND GYNECOLOGY

June 2025

Volume: 22

Issue: 2

www.tjoddergisi.org

- ▶ **Comparison of karyotype and CMA results**
Karyotip ve CMA sonuçlarının karşılaştırılması
Zafer Bütün, Masum Kayapınar, Gökalp Şenol, Ece Akca, Ebru Erzurumluoğlu Gökalp, Sevilhan Artan; Eskişehir, Mersin, Çorum Türkiye
- ▶ **Hyperemesis gravidarum severity and vitamin D**
Hiperemesis gravidarum şiddeti ve D vitamini
Neslihan Bayramoğlu Tepe, Denizhan Bayramoğlu, Reyhan Gündüz, Hüseyin Çağlayan Özcan, Hilmi Taşdemir, Tanyeli Güneylgil Kazaz; Gaziantep, İzmir, Diyarbakır, Türkiye
- ▶ **Artificial intelligence in prenatal diagnosis**
Prenatal tanıda yapay zeka
Emre Yalçın, Tarık Kaan Koç, Serpil Aslan, Süleyman Cansun Demir, İsmail Cüneyt Evrücke, Mete Sucu, Mesut Avan, Fatma İşlek Uzay; Adana, Malatya, Türkiye
- ▶ **Cervical cancer imaging: MRI vs. PET/CT**
Serviks kanserinde görüntüleme: MRG ve PET/BT
Süleyman Özen, Ergül Demircivi, Abdulkadir Turgut, Muzaffer Sancı; İzmir, İstanbul, Türkiye
- ▶ **Ovarian reserve post-3D cystectomy**
3D kistektomi sonrası over rezervi
Sabahattin Anıl Arı, Çağdaş Şahin, Ali Akdemir, Ahmet Mete Ergenoğlu, Ahmet Özgür Yeniel, Mustafa Coşan Terek, İsmail Mete İlil, Teksin Çırpan; İzmir, Türkiye
- ▶ **Higher gonadotropin doses in unexpected hypo-responders**
Beklenmedik düşük yanıt verenlerde gonadotropin dozları
Emre Pabuccu, Bilge Pınar Keskinsoy, Gular İsratılova, Deniz Han Deniz, Recai Pabuccu; Ankara, Türkiye
- ▶ **Effects of endometriosis surgery**
Endometriozis cerrahisinin etkileri
Ufuk Atılhan, Onur Yavuz, Hüseyin Aytuğ Aşar, Can Ata, Selçuk Erkinç, Tevfik Berk Bildacı, Ferruh Acet, Burak Ersak, Ali Cenk Özay; Manisa, İzmir, Ankara, Türkiye; Nicosia, North Cyprus
- ▶ **New therapeutic agents in ovarian torsion**
Over torsiyonunda yeni tedavi ajanları
Aydan Sezgin, Asiye Aslı Emniyet Sert, Gülnur Take Kaplanoğlu, Cengiz Karakaya, Erhan Demirdağ, M. Funda Cevher Akdulum, Mehmet Erdem, Ahmet Erdem, Mesut Öktem; Ankara, Çorum, Türkiye
- ▶ **Secretome in restoring ovarian function**
Yumurtalık fonksiyonunun geri kazanılmasında sekretom
Stella Kawilarang, I Gede Eka Wiratnaya, I Wayan Putu Sutirta Yasa, I Nyoman Gede Budiana; Bali, Indonesia
- ▶ **Cardio-cerebrovascular risk in PCOS women**
PKOS'lu kadınlarda kardiy-serebrovasküler risk
Seydeh Tarlan Mirzohreh, Arina Ansari, Hana Piroti, Reza Khademi, Yalda Jahanbani, Parvin Bastani Alamdari; Tabriz, Bojnurd, Tehran, Mashhad, Iran





TURKISH JOURNAL OF OBSTETRICS AND GYNECOLOGY

Owner on the behalf of Turkish Society of Obstetrics and Gynecology

İsmail Mete İtil

Editorial Manager

Ercan Yılmaz

Past/Honorary Editor in Chief

Hulusi Bülent Zeyneloğlu

Editor in Chief

Ercan Yılmaz

İnönü University Faculty of Medicine, Turgut Özal Medical Centre, Department of Obstetrics and Gynecology, Malatya, Türkiye

E-mail: ercan.yilmaz@inonu.edu.tr

Co-Editor in Chief

Fatih Şendağ

Ege University Faculty of Medicine, Department of Obstetrics and Gynecology, İzmir, Türkiye

E-mail: fatih.sendag@gmail.com

Section Editors

Hakan Aytan

Mersin University Faculty of Medicine, Department of Obstetrics and Gynecology, Mersin, Türkiye

0000-0002-2553-7715

drhakanaytan@yahoo.com

Rahime Nida Bayık

Ümraniye Training and Research Hospital, Department of Obstetrics and Gynecology, İstanbul, Türkiye

orcid.org/0000-0003-1805-2178

Mehmet Süha Bostancı

Sakarya University Faculty of Medicine, Department of Obstetrics and Gynecology, Adapazarı, Türkiye

orcid.org/0000-0002-4776-6244

Yiğit Çakıroğlu

Kocaeli University Faculty of Medicine, Department of Obstetrics and Gynecology, Kocaeli, Türkiye

Emek Doğer

Kocaeli University Faculty of Medicine, Department of Obstetrics and Gynecology, Kocaeli, Türkiye

Polat Dursun

Başkent University Faculty of Medicine, Department of Obstetrics and Gynecology, Ankara, Türkiye

E-mail: pdursun@yahoo.com

orcid.org/0000-0001-5139-364X

Evrin Erdemoğlu

Süleyman Demirel University Faculty of Medicine, Department of Gynecological Oncology, Isparta, Türkiye

0000-0002-5993-6968

evrimmd@yahoo.com

Şafak Hatırnaz

Medicana Samsun International Hospital, Department of Obstetrics and Gynecology, Samsun Türkiye

orcid.org/0000-0001-8859-0639

Bülent Haydardedeoğlu

Başkent University Faculty of Medicine, Department of Obstetrics and Gynecology, Ankara, Türkiye

E-mail: bulenthaydar@yahoo.com

Mete Sucu

Çukurova University Faculty of Medicine, Department of Obstetrics and Gynecology, Adana, Türkiye

0000-0002-6889-7147

metesucu@yahoo.com

Dilek Şahin

Bilkent State Hospital, Clinic of Perinatology, Ankara, Türkiye

0000-0001-8567-9048

dilekuygur@gmail.com

Mustafa Coşan Terek

Ege University Faculty of Medicine, Department of Obstetrics and Gynecology, İzmir, Türkiye

0000-0002-0294-2857

terekmc@yahoo.com

Mete Gürol Uğur

Gaziantep University Faculty of Medicine, Department of Obstetrics and Gynecology, Gaziantep, Türkiye

Statistics Editor

Bülent Haydardedeoğlu

Başkent University Faculty of Medicine, Department of Obstetrics and Gynecology, Ankara, Türkiye

E-mail: bulenthaydar@yahoo.com

Editorial Board

Aris Antsaklis

University of Athens, Department of Obstetrics and Gynecology, Athens, Greece

Aydın Arıcı

Yale University, Obstetrics, Gynecology and Reproductive Sciences, Connecticut, USA

Tayfun Bağış

Acıbadem University Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Türkiye



TURKISH JOURNAL OF OBSTETRICS AND GYNECOLOGY

Başak Baksu

Şişli Etfal Training and Research Hospital, Clinic of Obstetrics and Gynecology, İstanbul, Türkiye

Mehmet Süha Bostancı

Sakarya University Faculty of Medicine, Department of Obstetrics and Gynecology, Adapazarı, Türkiye
orcid.org/0000-0002-4776-6244

Sabri Cavkaytar

Zekai Tahir Burak Women's Health Training and Research Hospital, Clinic of Gynecologic Oncology, Ankara, Türkiye

Yiğit Çakıroğlu

Kocaeli University Faculty of Medicine, Department of Obstetrics and Gynecology, Kocaeli, Türkiye

Cem Dane

Haseki Training and Research Hospital, Clinic of Gynecologic Oncology, İstanbul, Türkiye

Emek Doğer

Kocaeli University Faculty of Medicine, Department of Obstetrics and Gynecology, Kocaeli, Türkiye

Mehmet Sıddık Evsen

Dicle University Faculty of Medicine, Department of Obstetrics and Gynecology, Diyarbakır, Türkiye

Kazım Gezgine

Necmettin Erbakan University Meram Faculty of Medicine, Department of Obstetrics and Gynecology, Konya, Türkiye

Haldun Güner

Gazi University Faculty of Medicine, Department of Obstetrics and Gynecology, Ankara, Türkiye

Cihan Karadağ

Fenerbahçe University, Medicana Hospital, Department of Obstetrics and Gynecology, İstanbul, Türkiye
orcid.org/0000-0002-4984-5739

Cihan Kaya

University of Health Sciences Türkiye, Bakırköy Dr. Sadi Konuk Training and Research Hospital, İstanbul, Türkiye
orcid.org/0000-0003-4175-7694

Issam Lebbi

Obstetrics and Gynecology and Fertility Private Clinic; Dream Center, Belvedere, Tunisia

Giampaolo Mandruzzato

Istituto per l'Infanzia, Burlo Garofolo, Obstetrics and Gynecology, Trieste, Italy

Charles E. Miller

Edward-Elmhurst Health Hospital, Gynecology; Reproductive Endocrinology and Infertility, The Advanced IVF and Gynecologic Surgery Institute, Naperville, USA

Sezcan Mümüşoğlu

Hacettepe University Faculty of Medicine, Department of Obstetrics and Gynecology, Ankara, Türkiye

Ceana H. Nezhat

Northside Hospital Director of Training and Education, Nezhat Medical Center, Endometriosis, Minimally Invasive Surgery, Atlanta, USA

Mehmet Anıl Onan

Gazi University Faculty of Medicine, Department of Obstetrics and Gynecology, Ankara, Türkiye

Enis Özkaya

Zeynep Kamil Woman and Childrens Health Training and Research Hospital, Clinic of Obstetrics and Gynecology, İstanbul, Türkiye
orcid.org/0000-0001-6580-1237

Federico Prefumo

Local Health District of Garda, Obstetrics, Brescia, Italy

Walid Saghir

Clemenceau Medical Center and Trad Hospital, Clinic of Obstetrics and Gynecology, Lebanon, UAE

Muhammet Erdal Sak

Harran University Faculty of Medicine, Department of obstetrics and Gynecology, Şanlıurfa, Türkiye

Emre Seli

Yale University, Obstetrics, Gynecology and Reproductive Sciences, Connecticut, USA

Silber Sherman

Infertility Center of St. Louis at St. Luke's Hospital; Public Health Service, Alaska, USA

Fatih Şendağ

Acıbadem University Faculty of Medicine, Department of Obstetrics and Gynecology, İstanbul, Türkiye

Mehmet Baki Şentürk

Namık Kemal University Faculty of Medicine, Tekirdağ, Türkiye
orcid.org/0000-0002-1915-163X

Ömer Lütfi Tapısız

Etlik Zübeyde Hanım Women's Health Training and Research Hospital, Clinic of Obstetrics and Gynecology, Ankara, Türkiye



TURKISH JOURNAL OF OBSTETRICS AND GYNECOLOGY

Hakan Timur

Ordu University Training and Research Hospital, Ordu, Türkiye
orcid.org/0000-0002-4312-4199

Serdar Ural

Penn State Hershey Womens Health Obstetrics and Gynecology,
Maternal-Fetal Medicine, Pennsylvania, USA

Emin Üstünyurt

Bursa High Specialty Training and Research Hospital, Obstetrics and
Gynecology, Bursa, Türkiye

Gazi Yıldırım

Yeditepe University Faculty of Medicine, Department of Obstetrics and
Gynecology, İstanbul, Türkiye

Please refer to the journal's webpage (<https://tjoddergisi.org/>) for "Aims and Scope", "Instructions to Authors" and "Peer-Review and Ethics".

The editorial and publication process of the Turkish Journal of Obstetrics and Gynecology are shaped in accordance with the guidelines of ICMJE, WAME, CSE, COPE, EASE, and NISO. The journal is in conformity with the Principles of Transparency and Best Practice in Scholarly Publishing.

Turkish Journal of Obstetrics and Gynecology is indexed in PubMed, PubMed Central (PMC), Web of Science-Emerging Sources Citation Index (ESCI), Tübitak/Ulakbim Turkish Medical Database, EBSCO, Embase, Scopus, ProQuest, British Library, Gale, CINAHL, Turk Medline, J-Gate, IdealOnline, CNKI, Hinari, GOALI, ARDI, OARE, AGORA and Türkiye Citation Index.

The journal is published electronically.

Owner: İsmail Mete İtil on behalf of the Turkish Society of Obstetrics and Gynecology

Responsible Manager: Ercan Yılmaz

Contact

Çetin Emeç Bulvarı Hürriyet Caddesi Harbiye Mahallesi 1/13 Öveçler, Ankara, Türkiye
Phone: +90 312 481 06 06 Fax: +90 312 481 28 28 E-mail: editor@tjod.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 the Turkish Journal of Obstetrics and Gynecology. Reproduction without prior written permission of part or all of any material is forbidden. The journal complies with the Professional Principles of the Press.

Reviewing the articles' conformity to the publishing standards of the Journal, typesetting, reviewing and editing the manuscripts and abstracts in English and publishing process are realized by Galenos.



Publisher Contact

Address: Molla Gürani Mah. Kaçamak Sk. No: 21/1 34093 İstanbul, Türkiye
Phone: +90 (530) 177 30 97 / +90 (539) 307 32 03 E-mail: info@galenos.com.tr Web: www.galenos.com.tr
Publisher Certificate Number: 14521

Online Publication Date: June 2025 E-ISSN: 2149-9330

International scientific journal published quarterly.

CONTENTS

Clinical Investigations

- 106** Comparison of conventional karyotype analysis and CMA results with ultrasound findings in pregnancies with normal QF-PCR results
QF-PCR sonuçları normal olan gebeliklerde konvansiyonel karyotip analizi ve KMA sonuçlarının ultrason bulguları ile karşılaştırılması
Zafer Bütün, Masum Kayapınar, Gökalp Şenol, Ece Akca, Ebru Erzurumluoğlu Gökalp, Sevilhan Artan; Eskişehir, Mersin, Çorum, Türkiye
- 114** Is there a correlation between the severity of symptoms and vitamin D levels in pregnancy with hyperemesis gravidarum?
Hiperemesis gravidarumlu gebelerde semptomların şiddeti ile serum D vitamini düzeyleri arasında korelasyon var mı?
Neslihan Bayramoğlu Tepe, Denizhan Bayramoğlu, Reyhan Gündüz, Hüseyin Çağlayan Özcan, Hilmi Taşdemir, Tanyeli Güneyligil Kazaz; Gaziantep, İzmir, Diyarbakır, Türkiye
- 121** Artificial intelligence in prenatal diagnosis: Down syndrome risk assessment with the power of gradient boosting-based machine learning algorithms
Prenatal tanıda yapay zeka: Gradient boosting tabanlı makine öğrenmesi algortimalarının gücü ile Down sendromu risk değerlendirmesi
Emre Yalçın, Tarık Kaan Koç, Serpil Aslan, Süleyman Cansun Demir, İsmail Cüneyt Evrücke, Mete Sucu, Mesut Avan, Fatma İşlek Uzun; Adana, Malatya, Türkiye
- 129** Evaluation of lymph node metastasis in cervical cancer: A retrospective comparison of preoperative MRI and PET/CT with postoperative histopathology results
Serviks kanserinde lenf nodu metastazının değerlendirilmesi: Preoperatif MRG ve PET/BT ile postoperatif histopatoloji sonuçlarının retrospektif olarak karşılaştırılması
Süleyman Özen, Ergül Demirci, Abdulkadir Turgut, Muzaffer Sancı; İzmir, İstanbul, Türkiye
- 134** Effects of ovarian cyst types on ovarian reserve after three-dimensional laparoscopic cystectomy
Üç boyutlu laparoskopik kistektomi sonrası yumurtalık kisti tiplerinin yumurtalık rezervi üzerindeki etkileri
Sabahattin Anıl Arı, Çağdaş Şahin, Ali Akdemir, Ahmet Mete Ergenoğlu, Ahmet Özgür Yeniel, Mustafa Coşan Terek, İsmail Mete İtil, Teksin Çırpan; İzmir, Türkiye
- 141** Unexpected hypo-responders in in vitro fertilization: The impact of higher gonadotropin doses on oocyte yield
Tüp bebekte beklenmedik düşük yanıt veren grupta: Daha yüksek gonadotropin dozlarının oosit verimine etkisi
Emre Pabuccu, Bilge Pınar Keskinsoy, Gular İbrahimova, Deniz Han Deniz, Recai Pabuccu; Ankara, Türkiye
- 147** Effect of deep infiltrative endometriosis surgery and surgical method on sexual function in females
Kadınlarda derin infiltratif endometriozis cerrahisi ve cerrahi yönteminin cinsel fonksiyon üzerine etkisi
Ufuk Atılhan, Onur Yavuz, Hüseyin Aytağ Aşar, Can Ata, Selçuk Erkinç, Tefik Berk Bildacı, Ferruh Acet, Burak Ersak, Ali Cenk Özyay; Manisa, İzmir, Ankara, Türkiye; Nicosia, North Cyprus



TURKISH JOURNAL OF OBSTETRICS AND GYNECOLOGY

CONTENTS

- 154** Assessing the potential of nifedipine and resveratrol to enhance ovarian viability in conjunction with detorsion treatment: A rat ovarian torsion model study
Detorsiyon tedavisine ek olarak nifedipin ve resveratrolün serum anti-müllerian hormon seviyesi ve over histopatolojisi üzerindeki etkileri: Rat over torsiyon modeli çalışması
Aydan Sezgin, Asiye Aslı Emniyet Sert, Gülnur Take Kaplanoğlu, Cengiz Karakaya, Erhan Demirdağ, M. Funda Cevher Akdulum, Mehmet Erdem, Ahmet Erdem, Mesut Öktem; Ankara, Çorum, Türkiye
- Reviews**
- 163** The role of secretome in restoring ovarian function: A systematic review and meta-analysis of *in vivo* studies in mice with premature ovarian insufficiency
Yumurtalık fonksiyonunun geri kazandırılmasında sekretomun rolü: Erken yumurtalık yetmezliği olan farelerde in vivo çalışmaların sistematik bir incelemesi ve meta-analizi
Stella Kawilarang, I Gede Eka Wiratnaya, I Wayan Putu Sutirta Yasa, I Nyoman Gede Budiana; Bali, Indonesia
- 170** Risk of cardiovascular and cerebrovascular events in polycystic ovarian syndrome women: An updated meta-analysis of cohort studies
Polikistik over sendromlu kadınlarda kardiyovasküler ve serebrovasküler olay riski: Kohort çalışmalarının güncellenmiş meta-analizi
Seyedeh Tarlan Mirzohreh, Arina Ansari, Hana Piroti, Reza Khademi, Yalda Jahanbani, Parvin Bastani Alamdari; Tabriz, Bojnurd, Tehran, Mashhad, Iran

Abstract