

MARCH 2019 ■ Volume 220, Number 3

EDITORIAL

213 De-Discovery of the Placenta Microbiome

Frederic D. Bushman

➤ Related article, page 267

EXPERT REVIEWS

215 How to obtain diagnostic planes of the fetal central nervous system using three-dimensional ultrasound and a context-preserving rendering technology



Andrea Dall'Asta; Gowrishankar Paramasivam; Sheikh Nigel Basheer; Elspeth Whitby; Zubair Tahir; Christoph Lees

The authors describe the key steps for volume acquisition of a 3-D ultrasound volume, manipulation, and processing with reference to images of the fetal central nervous system, using a newly developed context-preserving rendering technique.

SYSTEMATIC REVIEWS

230 Depressive symptoms among women with endometriosis: a systematic review and meta-analysis



Pietro Gambadauro; Vladimir Carli; Gergö Hadlaczky

The association between endometriosis and depressive symptoms is largely determined by chronic pain but may also be modulated by individual and context vulnerabilities.

CLINICAL OPINION

242 Achieving high value in the surgical approach to hysterectomy

James L. Whiteside; Carson T. Kaeser; Beri Ridgeway

A multimodal approach prioritizing altering physician payment models is necessary to achieve an increase in the proportion of high-value hysterectomies.

(continued)

 Selected papers presented at the February 2019 meeting of the Society for Maternal-Fetal Medicine and sped to press for the benefit of our readers.

Original research articles, whose abstracts appear in this issue, are posted in full at ajog.org

CELEBRATING AJOG CITATION CLASSICS

In December 1954, the Journal published a now-classic description of the process of labor by Emanuel A. Friedman, MD.

The author aimed to devise “a simple, reproducible, and relatively objective method of recording and comparing progressive changes” during labor. Cervical dilation plotted against time was chosen and became the standard.

Subjects were 100 term primigravidas receiving routine labor care at the Department of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, and the Sloane Hospital for Women, Columbia–Presbyterian Medical Center, New York, NY.

REFERENCE

Friedman E. The graphic analysis of labor. *Am J Obstet Gynecol* 1954;68:1568-75.

The article is available at ajog.org.

AJOG Roundup at ajog.org

Official journal of:



Society for
Maternal-Fetal
Medicine



Infectious Diseases
Society for Obstetrics
and Gynecology

The *American Journal of Obstetrics & Gynecology* (ISSN 0002-9378) is published monthly by Elsevier Inc., 230 Park Avenue, Suite 800, New York, NY 10169. Periodicals postage paid at New York, NY, and additional mailing offices. POSTMASTER: Send address changes to Elsevier, Journal Returns, 1799 Highway 50 East, Linn, MO 65051.



Glossary of Symbols

Editors' Choice



Articles selected by the editors for special notice

SMFM papers



Articles from the Society for Maternal–Fetal Medicine

Fast-Track papers



Research articles from the latest SMFM meeting, sped to press

IDSOG papers



Articles from the Infectious Diseases Society for Obstetrics and Gynecology

Online-only material



Appears only at ajog.org

Supplemental materials



Video clip available at ajog.org



Slides or other supporting didactic information available at ajog.org

Original research articles, whose abstracts appear in this issue, are posted in full at ajog.org

SUBMISSION TO ONLINE PUBLICATION: ~3.5 MONTHS

(continued)

CALL TO ACTION

246 Revitalizing research in genitourinary syndrome of menopause

Olivia H. Chang; Marie Fidela R. Paraiso

Physicians should act to address the limited research data, financial barriers, and fear surrounding the treatment of genitourinary syndrome of menopause.

VIEWPOINT

249 Preparing for a post-Roe world

Howard Minkoff; Ronald S. Gibbs

Possible changes in abortion laws will require physicians, other stakeholders in women's health, and their professional organizations to prepare to mitigate untoward consequences for women.

ORIGINAL RESEARCH

Articles abstracted in this issue appear in full at ajog.org

GYNECOLOGY

251 Incidence and risk factors of early postoperative small bowel obstruction in patients undergoing hysterectomy for benign indications

David Sheyn; C. Emi Bretschneider; Sangeeta T. Mahajan; Beri Ridgeway; Abigail Davenport; Robert Pollard

Early small bowel obstruction is a rare complication and is not associated with mode of hysterectomy after adjusting for confounders.

253 Safety of robotic-assisted gynecologic surgery and early hospital discharge in elderly patients

Nigel Madden; Melissa K. Frey; LiJin Joo; Jessica Lee; Kelsey Musselman; Jing Yi Chern; Stephanie V. Blank; Bhavana Pothuri

Robotic-assisted gynecologic surgery and early hospital discharge are safe in elderly patients.

255 Development of a standardized, reproducible screening examination for assessment of pelvic floor myofascial pain



Melanie R. Meister; Siobhan Sutcliffe; Chiara Ghetti; Christine M. Chu; Theresa Spitznagle; David K. Warren; Jerry L. Lowder

We developed a standardized examination for assessment of pelvic floor myofascial pain that is straightforward and reproducible and allows for easy use in clinical practice.

257 Uterine pathology in transmasculine persons on testosterone: a retrospective multicenter case series



Frances W. Grimstad; Kylie G. Fowler; Erika P. New; Cecile A. Ferrando; Robert R. Pollard; Graham Chapman; Veronica Gomez-Lobo; Meredith Gray
The predominant endometrial pathology in transmasculine persons on testosterone revealed active endometrium despite the absence of menses.

(continued on page 8A)

The online issue is FREE with your print subscription. Register at ajog.org/onlineaccess/.

Editors-in-Chief

Catherine Bradley, MD, MSCE
Gynecology

Roberto Romero, MD, DMedSci
Obstetrics

Deputy Editors

Jeffrey F. Peipert, MD, PhD
Gynecology

George A. Macones, MD
Anthony M. Vintzileos, MD
Obstetrics

Associate Editors

Valerie Baker, MD
Vincenzo Berghella, MD
Aaron B. Caughey, MD, PhD
Larry J. Copeland, MD
William A. Grobman, MD, MBA
Wanda Nicholson, MD, MPH, MBA
Mary E. Norton, MD
Samuel Parry, MD
Anthony C. Sciscione, DO

INTERNATIONAL AFFAIRS

Yves Ville, MD

Media Editor

Christopher J. Robinson, MD, MSCR

Editors Emeriti

Thomas J. Garite, MD
Moon H. Kim, MD
Ingrid E. Nygaard, MD, MS
E. J. Quilligan, MD

Social Media Committee

Pietro Bortoletto, MD
Frederick R. Bossert, MD, AMT
Martin R. Chavez, MD
Joshua D. Dahlke, MD
Linda R. Duska, MD
Andrea L. Greiner, MD
Vanita D. Jain, MD
Elisa M. Jorgensen, MD
Kimberly K. Ma, MD
Emily S. Reiff, MD
Amber Samuel, MD
Mark F. Sewell, MD
J. Ryan Stewart, DO
Mallory A. Stuparich, MD, FACOG
Melissa S. Wong, MD
Pensee Wu, MRCOG, MD(Res), MBChB

(continued)

ORIGINAL RESEARCH (continued from page 6A)**259** Opioid use after laparoscopic hysterectomy: prescriptions, patient use, and a predictive calculator

Marron Wong; Alison Vogell; Kelly Wright; Keith Isaacson; Megan Loring; Stephanie Morris

After laparoscopic hysterectomy, patients were prescribed 4 times more opioids than they used.

261 Fertility treatment use and breastfeeding outcomes

Chloe M. Barrera; Jennifer F. Kawwass; Sheree L. Boulet; Jennifer M. Nelson; Cria G. Perrine

Breastfeeding initiation was similar among women who conceived with and without fertility treatment. Assisted reproductive technology may be associated with lower breastfeeding continuation rates, mediated by an increased likelihood of multiples and preterm births.

263 Extent of lymphadenectomy and postoperative major complications among women with endometrial cancer treated with minimally invasive surgery

Rosa M. Polan; Emma C. Rossi; Emma L. Barber

Endometrial cancer patients treated with laparoscopic hysterectomy and sentinel lymphadenectomy have reduced risk of postoperative major complications and need for readmission compared with patients treated with traditional lymphadenectomy.

265 Responsiveness and minimally important difference of SF-6D and EQ-5D utility scores for the treatment of pelvic organ prolapse

Heidi S. Harvie; Amanda A. Honeycutt; Simon J. Neuwahl; Matthew D. Barber; Holly E. Richter; Anthony G. Visco; Vivian W. Sung; Jonathan P. Shepherd; Rebecca G. Rogers; Sharon Jakus-Waldman; Donna Mazloomdoost; for the NICHD Pelvic Floor Disorders Network

The SF-6D and EQ-5D are valid and responsive preference-based utility and general health-related quality of life measures with similar minimal important differences for women undergoing surgical treatment for pelvic organ prolapse.

OBSTETRICS**267** Does the human placenta delivered at term have a microbiota? Results of cultivation, quantitative real-time PCR, 16S rRNA gene sequencing, and metagenomics

Kevin R. Theis; Roberto Romero; Andrew D. Winters; Jonathan M. Greenberg; Nardhy Gomez-Lopez; Ali Alhousseini; Janine Bieda; Eli Maymon; Percy Pacora; Jennifer M. Fettweis; Gregory A. Buck; Kimberly K. Jefferson; Jerome F. Strauss III; Offer Erez; Sonia S. Hassan

A microbiota could not be demonstrated with the use of multiple modes of microbiologic inquiry in placentas of women who delivered at term without labor.

➤ Related editorial, page 213

ORIGINAL RESEARCH *(continued)***269** Computerized analysis of cardiocograms and ST signals is associated with significant reductions in hypoxic-ischemic encephalopathy and cesarean delivery: an observational study in 38,466 deliveries

Joana Lopes-Pereira; Ant3nia Costa; Diogo Ayres-De-Campos; Cristina Costa-Santos; Joana Amaral; Jo3o Bernardes

Introduction of routine computerized analysis of cardiocographic and ST signals led to significant reductions in hypoxic-ischemic encephalopathy and cesarean delivery.

271 Plasma and cerebrospinal fluid inflammatory cytokines in perinatal depression

Emily S. Miller; Allie Sakowicz; Archana Roy; Amy Yang; John T. Sullivan; William A. Grobman; Katherine L. Wisner

Higher concentrations of cerebrospinal fluid but not plasma cytokines are associated with perinatal depression.

273 Maternal and newborn outcomes with elective induction of labor at term

Vivienne Souter; Ian Painter; Kristin Sitcov; Aaron B. Caughey

Elective induction of labor at 39 weeks gestation is associated with a reduced rate of cesarean birth in nulliparous women and lower rates of pregnancy-related hypertension, irrespective of parity.

275 A randomized controlled trial of Dilapan-S vs Foley balloon for preinduction cervical ripening (DILAFOL trial)

Antonio F. Saad; Josephine Villarreal; Joe Eid; Nicholas Spencer; Viviana Ellis; Gary D. Hankins; George R. Saade

Dilapan-S is not inferior to Foley balloon for preinduction cervical ripening at term.

277 A case for not adjusting birthweight customized standards for ethnicity: observations from a unique Australian cohort

Roger Smith; Lita Mohapatra; Mandy Hunter; Tiffany-Jane Evans;

Christopher Oldmeadow; Elizabeth Holliday; Alexis Hure; John Attia

Aboriginal and non-Aboriginal babies have similar birthweights when adjustment is made for maternal smoking status; evidence shows that adjustment for ethnicity normalizes disadvantage.

279 Vascular and metabolic profiles in offspring born to pregnant mice with metabolic syndrome treated with inositols

Monica Longo; Mesk Alrais; Esther H. Tamayo; Francesca Ferrari;

Fabio Facchinetti; Jerrie S. Refuerzo; Sean C. Blackwell; Baha M. Sibai

Maternal inositol supplementation improves vascular and metabolic profile in mouse offspring born to pregnancies complicated by metabolic syndrome.

IMAGES IN GYNECOLOGY

281 Actinomycosis-induced adnexal and uterine masses mimicking malignancy on FDG PET/CT

Yiyan Liu

Positive fluorodeoxyglucose positron emission tomography findings may lead to a false-positive diagnosis of ovarian/uterine malignancy.

(continued)

Statistical Consultants

Paul S. Albert, PhD
Cande Ananth, PhD, MPH
Anita Das, PhD
Mary D. Sammel, ScD

Managing Editors

Sandra Perrine
Donna L. Stroud

Editorial Consultant

Marcia Ringel

Advisory Board**Subspecialty Areas**

Ray O. Bahado-Singh, MD
Obstetric ultrasound

Judith L. Balk, MD
Nutrition

Sarah L. Berga, MD
Neuroendocrinology and
reproductive neurobiology

Michael J. Birrer, MD, PhD
Biology of gynecologic cancers

Wendy R. Brewster, MD, PhD
Gynecologic epidemiology

William Camann, MD
Obstetric anesthesiology

Frank A. Chervenak, MD
Ethics

Reese Clark, MD
Neonatology

Arnold W. Cohen, MD
Managed care

Michal A. Elovitz, MD
Translational science in obstetrics

Murray Freedman, MD
Psychosexual issues

Robert E. Garfield, PhD
Uterine physiology

Ronald S. Gibbs, MD
Infectious diseases

Linda C. Giudice, MD, PhD
Reproductive cellular biology

(continued)

Advisory Board *(continued)*

Robert L. Goldenberg, MD
Obstetric epidemiology

Steven R. Goldstein, MD
Gynecologic ultrasound

Seth M. Guller, PhD
Translational science in obstetrics

Susan L. Hendrix, DO
Reproductive physiology

Robert J. Kurman, MD
Gynecologic pathology

Laurence B. McCullough, MD
Ethics

Jennifer L. Melville, MD, MPH
Behavioral medicine

Thomas J. Musci, MD
Fetal physiology

Leslie Myatt, PhD
Vascular biology

Anita L. Nelson, MD
Family planning

Jennifer R. Niebyl, MD
Drugs in pregnancy

Errol R. Norwitz, MD, PhD
Translational science in obstetrics

Pasquale Patrizio, MD, MBE
Andrology

Susan D. Reed, MD, MPH
Menopause

Joseph S. Sanfilippo, MD, MBA
Adolescent gynecology

Nanette Santoro, MD
Menopause

Robert M. Silver, MD
Immunology

Stephen Vermillion, MD
Peer review

Kenneth Ward, MD
Molecular genetics

Katharine D. Wenstrom, MD
Genetics and teratology

Sharon Wilczynski, MD, PhD
Cytology and pathology

(continued)

IMAGES IN OBSTETRICS

- 282** The case for magnetic resonance imaging in bowel obstruction during pregnancy: Intussusception in a pregnant woman with Roux-en-Y gastric bypass
Sebastien Moliere; Victor Cavillon; Yannis Mesli
Bowel intussusception is a rare condition that is more frequent after gastric bypass.

RESEARCH LETTERS

- 284** ELABELA concentration is not decreased in maternal plasma before the onset of preeclampsia
Patricia Villie; Guillaume Lefevre; Romain Arrestier; Alexandra Rousseau; Nadia Berkane; Alexandre Hertig
- 285** Evaluation of proposed criteria for research reporting of amniotic fluid embolism
Irene A. Stafford; Amirhossein Moaddab; Gary A. Dildy; Miranda Klassen; Michael A. Belfort; Roberto Romero; Steven L. Clark

LETTERS TO THE EDITORS

- 288** Postponing early intrauterine transfusion with intravenous immunoglobulin treatment: the PETIT study on severe hemolytic disease of the fetus and newborn
E. Maisonneuve; C. Toly-Ndour; J. M. Jouannic
- 289** Surgical variance between post-conceptual and pre-conceptual minimally invasive trans-abdominal cerclage placement
Solene Vigoureux; Perrine Capmas; Hervé Fernandez
- 290** Progesterone for preterm birth prevention: the importance of informed consent
Adam C. Urato
Reply, page 290
David B. Nelson; Donald D. McIntire; Kenneth J. Leveno
- 291** Regenerative medicine in treatment of fecal incontinence: do we understand how it works?
Mohammed El-Said; Sameh Hany Emile
Reply, page 292
Wiep R. De Ligny; Manon H. Kerkhof; Alejandra M. Ruiz-Zapata

RECRUITMENT & EMPLOYMENT OPPORTUNITIES

- 19A** Classified advertising