

SEPTEMBER 2019 ■ Volume 221, Number 3

EDITORIALS

175 *AJOG* opens editorial office in China: Professor Huixia Yang appointed Editor

Roberto Romero

177 Prolapse, pain, and pelvic floor muscle dysfunction

Catherine S. Bradley

➤ Related articles, pages 233 and 235

179 Importance of research in reducing maternal morbidity and mortality rates

Nahida Chakhtoura; Juanita J. Chinn; Katherine L. Grantz; Esther Eisenberg; Shavon Artis Dickerson; Charisee Lamar; Diana W. Bianchi

EXPERT REVIEWS

183 Learning from experience: cellular and molecular bases for improved outcome in subsequent pregnancies

Debra Goldman-Wohl; Moriya Gamliel; Ofer Mandelboim; Simcha Yagel

A unique subset of decidual natural killer cells coined “pregnancy-trained decidual NK cells” contribute to improved outcome in subsequent pregnancies, possibly by improving placental bed development.

SYSTEMATIC REVIEWS

194 Gynecologic cancer in HIV-positive women: a systematic review and meta-analysis

Anna Jo Bodurtha Smith; Sanskriti Varma; Anne F. Rositch; Kimberly Levinson

While women with HIV are more likely to be diagnosed with ovarian and vulvovaginal cancer, there is a paucity of outcome data for non-acquired immunodeficiency syndrome—defining gynecologic cancers.

(continued)

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

AJOG CITATION CLASSICS

Top-cited articles in the Journal

Throughout this sesquicentennial year, the Journal has been proudly acknowledging its profound influence in the field. A Special Report published in January used bibliometric analysis to identify the papers with the greatest impact that had appeared since 1920.

The analysis found that just over half of the top-cited papers in the Journal during that period were observational studies; 75% overall were from US authors. Papers published since 1995 were more likely than those published earlier to be randomized and to have originated from international authors.

Many of the Journal’s most frequently cited articles as well as those whose authors’ names have become associated with their findings are available as Citation Classics or *AJOG* eponyms under the Collections tab at ajog.org. The full study cited below is available in the January 2019 issue at ajog.org under “List of issues” under the “Articles & Issues” tab under the Journal logo.

REFERENCE

Yadava SM, Patrick HS, Ananth CV, et al. Top-cited articles in the Journal: a bibliometric analysis. *Am J Obstet Gynecol* 2019;220:12-25.

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Glossary of Symbols

Editors' Choice



Articles selected by the editors for special notice

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Research articles from the latest SMFM meeting, sped to press

IDSOG papers



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SYSTEMATIC REVIEWS *(continued)*

208 Prevalence and main outcomes of placenta accreta spectrum: a systematic review and meta-analysis

Eric Jauniaux; Catey Bunce; Lene Grønbeck; Jens Langhoff-Roos

High heterogeneity in prevalence data between population and cohort studies is due to wide variations in diagnostic criteria in diagnosing accreta placentation at birth.

CLINICAL OPINION

219 Preeclampsia: the role of persistent endothelial cells in uteroplacental arteries

Ivo Brosens; Jan J. Brosens; Joanne Mutter; Patrick Puttemans;

Giuseppe Benagiano

We explore the potential role of the endothelial lining of uteroplacental arteries in the pathogenesis of preeclampsia, and we hypothesize that partial persistence of the endothelium, albeit injured, initiates a chain of events leading to the emergence of preeclampsia in 3 sequential stages.

CALL TO ACTION

227 The continuing burden of Rh disease 50 years after the introduction of anti-Rh(D) immunoglobulin prophylaxis: call to action

Gerard H. A. Visser; Gian Carlo Di Renzo; Steven L. Spitalnik;

FIGO Committee Safe Motherhood and Newborn Health

Fifty years after the introduction of anti-Rh(D) immunoglobulin prophylaxis, the ongoing, worldwide burden of Rh disease has only been reduced by approximately 50%.

VIEWPOINT

230 The two Achilles heels of surgical randomized controlled trials: differences in surgical skills and reporting of average performance

Farr R. Nezhat; Cande V. Ananth; Anthony M. Vintzileos

Surgical randomized controlled trials that involve new or complex procedures should evaluate and monitor surgical skills of participating surgeons objectively and enhance statistical reporting of findings by both individual center and surgeons.

ORIGINAL RESEARCH

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

GYNECOLOGY

233 Pain and activity after vaginal reconstructive surgery for pelvic organ prolapse and stress urinary incontinence

Matthew D. Barber; Linda Brubaker; Ingrid Nygaard; Clifford Y. Wai;

Keisha Y. Dyer; David Ellington; Amaanti Sridhar; Marie G. Gantz;

for the NICHD Pelvic Floor Disorders Network

Pain and functional activity improve for up to 2 years after native tissue reconstructive surgery with uterosacral or sacrospinous vaginal vault suspension for pelvic organ prolapse.

➤ Related editorial, page 177

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ORIGINAL RESEARCH (continued from page 2A)**235 Pelvic floor myofascial pain severity and pelvic floor disorder symptom bother: is there a correlation?**

Melanie R. Meister; Siobhan Sutcliffe; Asante Badu; Chiara Ghetti;
Jerry L. Lowder

We found that pelvic floor myofascial pain was common in patients seeking evaluation for pelvic floor disorder symptoms, and that the severity of pelvic floor myofascial pain was correlated with the degree of symptom bother.

➤ Related editorial, page 177

237 International validation of Enhanced Recovery After Surgery Society guidelines on enhanced recovery for gynecologic surgery

Lena Wijk; Ruzan Udumyan; Basile Pache; Alon D. Altman; Laura L. Williams;
Kevin M. Elias; Jake McGee; Tiffany Wells; Leah Gramlich; Kevin Holcomb;
Chahin Ahtari; Olle Ljungqvist; Sean C. Dowdy; Gregg Nelson

Increasing compliance with the Enhanced Recovery After Surgery gynecology guideline elements is associated with a decrease of length of stay and lower odds of complications.

239 Safety of same-day discharge for minimally invasive hysterectomy for endometrial cancer

Aaron M. Praiss; Ling Chen; Caryn M. St Clair; Ana I. Tergas;
Fady Khoury-Collado; June Y. Hou; Cande V. Ananth; Alfred I. Neugut;
Dawn L. Hershman; Jason D. Wright

Same-day discharge is safe and feasible in select populations of women who undergo minimally invasive hysterectomy for endometrial cancer.

241 Histologic correlation between smartphone and colposcopic findings in patients with abnormal cervical cytology: experiences in a tertiary referral hospital

Yusuke Tanaka; Yutaka Ueda; Reisa Kakubari; Mamoru Kakuda;
Satoshi Kubota; Satoko Matsuzaki; Akiko Okazawa; Tomomi Egawa-Takata;
Shinya Matsuzaki; Eiji Kobayashi; Tadashi Kimura

There was a substantial agreement between histologic diagnoses based on the smartphone and colposcopic findings.

243 Does surgical platform impact recurrence and survival? A study of utilization of multiport, single-port, and robotic-assisted laparoscopy in endometrial cancer surgery

Laura M. Chambers; Caitlin Carr; Lindsey Freeman; Amelia M. Jernigan;
Chad M. Michener

In women undergoing endometrial cancer staging surgery, there is no difference in oncologic outcomes between robotic-assisted laparoscopy, single-port laparoscopy, or multiport laparoscopy.

245 Clinical and molecular characterization of ovarian carcinoma displaying isolated lymph node relapse

Robert L. Hollis; Juliet Carmichael; Alison M. Meynert; Michael Churchman;
Amelia Hallas-Potts; Tzyvia Rye; Melanie MacKean; Fiona Nussey;
Colin A. Semple; C. Simon Herrington; Charlie Gourley

Ovarian carcinoma patients demonstrating isolated lymph node relapse display favorable outcome and greater tumor-infiltrating T-cell burden at diagnosis compared with extranodal relapse cases.

ORIGINAL RESEARCH *(continued)*

OBSTETRICS

- 247** Guidelines for postoperative care in cesarean delivery: Enhanced Recovery After Surgery (ERAS) Society recommendations (part 3)
George A. Macones; Aaron B. Caughey; Stephen L. Wood; Ian J. Wrench; Jeffrey Huang; Mikael Norman; Karin Pettersson; William J. Fawcett; Medhat M. Shalabi; Amy Metcalfe; Leah Gramlich; Gregg Nelson; R. Douglas Wilson
Guidelines for postoperative care after cesarean delivery are presented.
- 249** The effect of parity on longitudinal maternal hemodynamics
 Hua Zen Ling; Gavin P. Guy; Alessandra Bisquera; Liona C. Poon; Kypros H. Nicolaides; Nikos A. Kametas
Parous women with previous normal pregnancies have the most favorable cardiac adaptation compared with nulliparous and those with previous complicated pregnancies.
- 251** Association between hypertensive disorders and fetal growth restriction in twin compared with singleton gestations
 Leslie K. Proctor; Julia Kfoury; Liran Hirsch; Amir Aviram; Arthur Zaltz; John Kingdom; Jon Barrett; Nir Melamed
The association between hypertensive disorders of pregnancy and fetal growth restriction in dichorionic twin gestations is similar to that observed in singleton gestations so long as appropriate birthweight references are applied.
- 253** Comparing pregnancy outcomes and loss rates in elective twin pregnancy reduction with ongoing twin gestations in a large contemporary cohort
Luciana A. Vieira; Leslie Warren; Stephanie Pan; Lauren Ferrara; Joanne L. Stone
Elective twin pregnancy reduction decreases the risk of preterm birth and adverse pregnancy outcomes.
- 255** A pharmacokinetic assessment of optimal dosing, preparation, and chronotherapy of aspirin in pregnancy
 Renuka Shanmugalingam; XiaoSuo Wang; Gerald Münch; Ian Fulcher; Gaksoo Lee; Katrina Chau; Bei Xu; Roshika Kumar; Annemarie Hennessy; Angela Makris
We demonstrated that the total drug metabolite concentration of aspirin is reduced in pregnancy compared to that in nonpregnant women, which suggests the need for dose adjustment in pregnancy.
- 257** Working-hour phenomenon in obstetrics is an attainable target to improve neonatal outcomes
 Karin Windsperger; Herbert Kiss; Wilhelm Oberaigner; Hermann Leitner; Dana A. Muin; Peter W. Husslein; Alex Farr
The working-hour phenomenon indicates an increased risk of adverse neonatal outcomes between 2:00 and 7:59 AM, which should be reflected in organizational concerns of obstetrical care.

*(continued)***Statistical Consultants**

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ORIGINAL RESEARCH *(continued)*

259 **A comparison of vaginal versus buccal misoprostol for cervical ripening in women for labor induction at term (the IMPROVE trial): a triple-masked randomized controlled trial**
David M. Haas; Joanne Daggy; Kathleen M. Flannery; Meredith L. Dorr; Carrie Bonsack; Surya S. Bhamidipalli; Rebecca C. Pierson; Anthony Lathrop; Rachel Towns; Nicole Ngo; Annette Head; Sarah Morgan; Sara K. Quinney
In leading to a higher rate of vaginal deliveries and more rapid vaginal delivery, vaginal misoprostol may be superior to buccal misoprostol for cervical ripening at term.

261 **Povidone-iodine 1% is the most effective vaginal antiseptic for preventing post-cesarean endometritis: a systematic review and network meta-analysis**
Jared T. Roeckner; Luis Sanchez-Ramos; Melanie Mitta; Andrew Kovacs; Andrew M. Kaunitz
Povidone-iodine for surgical vaginal preparation before cesarean delivery is most effective at the reduction of endometritis, wound infection, and postoperative fever.

MEETING PAPERS

SELECTED PAPERS FROM THE 39TH ANNUAL MEETING OF THE SOCIETY FOR MATERNAL-FETAL MEDICINE

263 **Pharmacokinetics of vaginal progesterone in pregnancy**
Rupsa C. Boelig; Athena F. Zuppa; Walter K. Kraft; Steve Caritis
The pharmacokinetics of 200 mg micronized vaginal progesterone were determined through serum progesterone. Given the limited change in serum concentrations and high variability, it is unlikely that serum concentrations can be used to optimize a dosing regimen or to serve as a surrogate marker for efficacy.

265 **Point-of-care HIV viral load in pregnant women without prenatal care: a cost-effectiveness analysis**
Carmen M. Avram; Karen S. Greiner; Ellen Tilden; Aaron B. Caughey
A point-of-care HIV RNA viral load test to guide delivery in HIV-infected pregnant women without prenatal care is not cost-effective compared with routine cesarean delivery.

267 **Validation of a new method to assess estimated blood loss in the obstetric population undergoing cesarean delivery**
Fawzi Saoud; Amanda Stone; Anna Nutter; Gary D. Hankins; George R. Saade; Antonio F. Saad
The Triton system provides a more accurate method of estimating of blood loss than visual estimation in women undergoing cesarean delivery.

269 **Assessment of blood-brain barrier integrity and neuroinflammation in preeclampsia**
Richard M. Burwick; Brandon M. Togioka; Rosa J. Speranza; Jessica E. Gaffney; Victoria H. J. Roberts; Antonio E. Frias; Mónica Rincón
The integrity of the blood-brain barrier is maintained in preeclampsia, despite evidence of terminal complement activation and systemic inflammation.

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MEETING PAPERS *(continued from page 6A)*

- 271 A comorbidity-based screening tool to predict severe maternal morbidity at the time of delivery**
Sarah Rae Easter; Brian T. Bateman; Valerie Horton Sweeney; Karen Manganaro; Sarah C. Lasse; Joshua J. Gagne; Julian N. Robinson
The obstetric comorbidity index summarizes maternal comorbidities into a score that is capable of identifying women who are at risk for severe maternal morbidity at delivery.
- 273 An abnormal cerebroplacental ratio (CPR) is predictive of early childhood delayed neurodevelopment in the setting of fetal growth restriction**
Cathy Monteith; Karen Flood; Ragamallika Pinnamaneni; Terri A. Levine; Fiona A. Alderdice; Julia Unterscheider; Fionnuala M. McAuliffe; Patrick Dicker; Elizabeth C. Tully; Fergal D. Malone; Adrienne Foran
An abnormal cerebroplacental ratio in the setting of fetal growth restriction is associated with poorer neurodevelopmental outcomes at 3 years.
- 275 Tranexamic acid in the routine treatment of postpartum hemorrhage in the United States: a cost-effectiveness analysis**
Leanna S. Sudhof; Scott A. Shainker; Brett D. Einerson
Tranexamic acid for the treatment of postpartum hemorrhage is cost saving in a US population across a wide range of plausible scenarios.
- 277 Blood pressure trajectory and category and risk of hypertensive disorders of pregnancy in nulliparous women**
Alisse Hauspurg; Samuel Parry; Brian M. Mercer; William Grobman; Tamera Hatfield; Robert M. Silver; Corette B. Parker; David M. Haas; Jay D. Iams; George R. Saade; Ronald J. Wapner; Uma M. Reddy; Hyagriv Simhan
In nonhypertensive, nondiabetic nulliparous women, increasing blood pressure in early pregnancy is associated with an increased risk of gestational hypertension and preeclampsia.

IMAGES IN OBSTETRICS AND GYNECOLOGY

- 279 An infiltrated vulvar plaque: Metastatic cutaneous Crohn's disease**
Anuradha Bishnoi; Nirmalya Banerjee; Uma Nahar Saikia; Davinder Parsad
Metastatic Crohn's disease is an important diagnosis for persistent vulvar plaques.
- 280 Placental anastomoses in a spontaneous monochorionic-triamniotic triplet pregnancy**
Christoph Wohlmuth
Arterioarterial and/or venovenous anastomoses were found on each of the 3 vascular equators that allowed pressure equalization of unidirectional flow through arteriovenous connections.

RESEARCH LETTERS

- 281 Pathways to pregnancy for sexual minority women in same-sex marriages**
Janelle M. Downing

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282 Impact of team training on visit cycle time in ambulatory reproductive health care centers

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283 Text message remote monitoring reduced racial disparities in postpartum blood pressure ascertainment

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286 Confined placental trisomy detection through cell-free DNA in the maternal circulation: Benefit for pregnancy management

Dong-Zhi Li; Yi He

287 More research is needed prior to the implementation of genome-wide cell-free DNA testing in specific populations (Response to letter L19-020A: Confined placental trisomy detection through cell-free DNA in the maternal circulation: Benefit for pregnancy management)

Gian Carlo Di Renzo; José Luis Bartha; Catia M. Bilardo

288 Should we offer elective induction of labor to nulliparous women at 39 weeks?

Joanna Sichitui; David Desseauve

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William A. Grobman; Aaron B. Caughey

289 Cystoscopy at the time of benign hysterectomy: a decision analysis

Douglas H. Gilchrist-Scott; Margaret G. Mueller; Kimberly S. Kenton

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Lauren A. Cadish; Beri M. Ridgeway; Jonathan P. Shepherd

290 Uterine and fetal placental Doppler indices are associated with maternal cardiovascular function

Simcha Yagel

291 Uterine and fetal placental Doppler indices are associated with maternal cardiovascular function: Reply

Jasmine Tay; Christoph Lees

292 Revitalizing research in genitourinary syndrome of menopause

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