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SMFM SPECIAL REPORT

753 SMFM Statement: clarification of recommendations regarding cell-free DNA aneuploidy screening



Society for Maternal-Fetal Medicine (SMFM) Publications Committee

The Society for Maternal-Fetal Medicine recognizes the value of cell-free DNA screening for women at higher risk for aneuploidy but considers that cell-free DNA screening is not the appropriate choice for first-line screening for the low-risk obstetric population at the present time.

EXPERT REVIEWS

OBSTETRICS

755 Conservative management of morbidly adherent placenta: expert review

Karin A. Fox; Alireza A. Shamshirsaz; Daniela Carusi; Angeles Alvarez Secord; Paula Lee; Ozhan M. Turan; Christopher Huls; Alfred Abuhamad; Hyagriv Simhan; John Barton; Jason Wright; Robert Silver; Michael A. Belfort
Interest in conservative management is rising worldwide; however, this approach is not without risk, and here we review techniques used and identify needs for further research.

761 Marijuana use in pregnancy and lactation: a review of the evidence

Torri D. Metz; Elaine H. Stickrath

With the increasing legalization of marijuana, more data are needed to counsel women regarding potential short- and long-term adverse effects of marijuana in exposed offspring.

779 Cerebral palsy: causes, pathways, and the role of genetic variants



Alastair H. MacLennan; Suzanna C. Thompson; Jozef Gecz

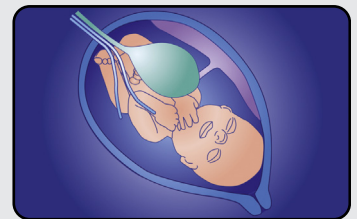
Cerebral palsy is a heterogeneous group of conditions. Exome sequencing has discovered genetic variants in up to 45% of cases calling for reevaluation of causation.

(continued)



Summarized research articles are posted in full at ajog.org

ON THE COVER



Experimental inflation of an intra-amniotic balloon (in a nonhuman primate pregnancy) induced an inflammatory pulse and preterm labor.

Related article, page 830

Drawing based on an image provided by Kristina M. Adams Waldorf, MD, Department of Obstetrics and Gynecology, University of Washington School of Medicine, Seattle, WA.

AJOG Roundup at ajog.org

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SMFM papers



Articles from the Society for Maternal-Fetal Medicine

Research articles summarized in the print issue are posted in full at ajog.org

SUBMISSION TO ONLINE PUBLICATION: ~3.5 MONTHS

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SYSTEMATIC REVIEW

OBSTETRICS

- 789** Predictive accuracy of changes in transvaginal sonographic cervical length over time for preterm birth: a systematic review and metaanalysis
 Agustin Conde-Agudelo; Roberto Romero
 The predictive accuracy for preterm birth of changes in cervical length over time is low in singleton gestations and low to moderate in twin gestations.

CLINICAL OPINION

GYNECOLOGY

- 802** Does prolapse equal hysterectomy? The role of uterine conservation in women with uterovaginal prolapse
 Beri M. Ridgeway
 Uterine-sparing prolapse procedures are an acceptable option for women with uterovaginal prolapse.

OBSTETRICS

- 810** Should pregnant women be included in phase IV clinical drug trials?
 Gerald G. Briggs; Janine E. Polifka; Katherine L. Wisner; Eric Gervais; Richard K. Miller; Anick Berard; Gideon Koren; Alicia Forinash; Craig V. Towers
 This paper examines how physicians currently counsel pregnant women when there are no human data and proposes an alternative method in which knowledge regarding risks associated with the use of drugs during pregnancy can be enhanced in a clinical trial setting.

VIEWPOINT

GYNECOLOGY

- 816** Potential harms outweigh benefits of indefinite monitoring of stable adnexal masses
 Elizabeth Suh-Burgmann; Walter Kinney
 Ultrasound observation of stable adnexal masses should be limited in duration due to potential harms associated with perpetual imaging and absence of proven benefit.

OBSTETRICS

- 819** Fetal tissue research: an ongoing story of professionally responsible success
 Shari E. Gelber; Laurence B. McCullough; Frank A. Chervenak
 Research utilizing cadaveric fetal tissue has benefited society, and the acquisition and use of such tissue are professionally responsible.

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RESEARCH**GYNECOLOGY****822 Long-term utilization and continuation of intrauterine devices**

Justin T. Diedrich; Tessa Madden; QiuHong Zhao; Jeffrey F. Peipert

Long-term use of both copper and levonorgestrel intrauterine devices remains high (> 60%) at 48 months.

824 Burnout and associated factors among members of the Society of Gynecologic Oncology

Kellie S. Rath; Laura B. Huffman; Gary S. Phillips;

Kristen M. Carpenter; Jeffrey M. Fowler

Burnout is associated with decreased career satisfaction, psychosocial distress, and decreased quality of life among members of the Society of Gynecologic Oncology.

827 Multimodal nociceptive mechanisms underlying chronic pelvic pain

Kevin M. Hellman; Insiyyah Y. Patanwala; Kristen E. Pozolo; Frank F. Tu

Most women with chronic pelvic pain exhibit reduced pelvic mechanical pain thresholds and/or sustained provoked pain, suggesting specific peripheral nerve impairments may underlie their symptoms.

OBSTETRICS**830 Uterine overdistention induces preterm labor mediated by inflammation: observations in pregnant women and nonhuman primates**

Kristina M. Adams Waldorf; Natasha Singh; Aarthi R. Mohan; Roger C. Young;

Lisa Ngo; Ananya Das; Jesse Tsai; Aasthaa Bansal; Louis Paoletta;

Bronwen R. Herbert; Suren R. Sooranna; G. Michael Gough; Cliff Astley;

Keith Vogel; Audrey E. Baldessari; Theodor K. Bammler; James MacDonald;

Michael G. Gravett; Lakshmi Rajagopal; Mark R. Johnson

Uterine overdistention in pregnant nonhuman primates induces preterm labor mediated by inflammation, which is also observed in women with polyhydramnios and twins.

833 A large head circumference is more strongly associated with unplanned cesarean or instrumental delivery and neonatal complications than high birthweight

Michal Lipschuetz; Sarah M. Cohen; Eliana Ein-Mor; Hanna Sapir;

Drorith Hochner-Celnikier; Shay Porat; Hagai Amsalem;

Dan V. Valsky; Yossef Ezra; Matan Elami-Suzin; Ora Paltiel; Simcha Yagel

Head circumference \geq 95th centile is more strongly associated with the occurrence of unplanned cesarean and instrumental delivery, as well as maternal and fetal complications, than birthweight >95th centile.

836 Evidence of perturbations of the cytokine network in preterm labor

Roberto Romero; Jean-Charles Grivel; Adi L. Tarca; Piya Chaemsaitong;

Zhonghui Xu; Wendy Fitzgerald; Sonia S. Hassan;

Tinnakorn Chaiworapongsa; Leonid Margolis

Patients with preterm labor who had intraamniotic inflammation (both microbial-associated and sterile) showed evidence of a perturbation of inflammatory-related proteins in the amniotic cavity. These observations can be of value for prioritization of candidate proteins as disease biomarkers and can possibly improve prediction performance in the preterm labor syndrome.

(continued)

RESEARCH (continued)

839 Fetal programming and systemic sclerosis

Gianpaolo Donzelli; Giulia Carnesecchi; Carolina Amador; Mariarosaria di Tommaso; Luca Filippi; Roberto Caporali; Veronica Codullo; Valeria Ricciari; Guido Valesini; Armando Gabrielli; Roberta Bagnati; Kathleen S. McGreevy; Salvatore De Masi; Marco Matucci Cerinic

Low birthweight and small for gestational age are risk factors for the development of systemic sclerosis in adulthood.

841 Impact of fetal chromosomal disorders on maternal blood metabolome: toward new biomarkers?

Joana Pinto; Lara Monteiro Almeida; Ana Sofia Martins; Daniela Duarte; Maria Rosário Marques Domingues; António Sousa Barros; Eulália Galhano; Cristina Pita; Maria do Céu Almeida; Isabel Marques Carreira; Ana Maria Gil

Nuclear magnetic resonance metabolomics shows that chromosomal disorders have an impact on maternal plasma composition, reflecting dynamic deviations in lipid/energy metabolisms and suggesting midpregnancy inflammation and renal dysfunction.

844 Does 17-alpha hydroxyprogesterone caproate prevent recurrent preterm birth in obese women?

Kent D. Heyborne; Amanda A. Allshouse; J. Christopher Carey

17-Alpha hydroxyprogesterone caproate does not prevent recurrent preterm birth in obese women.

846 Vaginal progesterone, but not 17 α -hydroxyprogesterone caproate, has antiinflammatory effects at the murine maternal-fetal interface

Amy-Eunice Furcron; Roberto Romero; Olesya Plazyo; Ronald Unkel; Yi Xu; Sonia S. Hassan; Piya Chaemsaitong; Arushi Mahajan; Nardhy Gomez-Lopez

Vaginal progesterone, but not 17 α -hydroxyprogesterone caproate, has antiinflammatory effects at the maternal-fetal interface and prevents endotoxin-induced preterm birth in mice.

849 Placental pathology is associated with severity of neonatal encephalopathy and adverse developmental outcomes following hypothermia

Imran N. Mir; Sarah F. Johnson-Welch; David B. Nelson; Larry S. Brown; Charles R. Rosenfeld; Lina F. Chalak

Inflammatory lesions of the placenta, specifically patchy/diffuse chronic villitis, are associated with abnormal neurodevelopmental outcomes in infants who received postnatal hypothermia for moderate-severe neonatal encephalopathy.

851 Magnesium sulfate prevents maternal inflammation–induced impairment of learning ability and memory in rat offspring

Vered B. Lamhot; Nizar Khatib; Yuval Ginsberg; Rachel Anunu; Gal Richter-Levin; Zeev Weiner; Michael G. Ross; Michael Y. Divon; Mordechai Hallak; Ron Beloosesky

Lipopolysaccharide-stimulated inflammation in pregnant rats impairs offspring learning, and maternal treatment with magnesium ameliorates this response.

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- 853 Alterations to the maternal circulating proteome after preeclampsia**
Malia Su-Qin Murphy; Egle Bytautiene; George Saade; Graeme Neil Smith
Women with a history of preeclampsia exhibit alterations to the circulating proteome.
- 856 Intra- and interobserver agreement among obstetric experts in court regarding the review of abnormal fetal heart rate tracings and obstetrical management**
Laura Sabiani; Renaud Le Dú; Anderson Loundou; Claude d'Ercole; Florence Bretelle; Léon Boubli; Xavier Carcopino
The intra- and interobserver agreement among obstetric experts in court for the review of abnormal fetal heart rate tracing and the appropriateness of obstetrical care is poor, suggesting a lack of objectivity of obstetrical expertise as currently performed in court.
- 859 Prostaglandin vaginal gel induction of labor comparing amniotomy with repeat prostaglandin gel**
Michael Beckmann; Sailesh Kumar; Vicki Flenady; Ellen Harker
This randomized controlled trial compared 2 protocols of induction of labor to determine which was associated with the shorter duration of induced labor.
- 861 Effect of stage of initial labor dystocia on vaginal birth after cesarean success**
Adam Korrick Lewkowicz; Sanae Nakagawa; Mari-Paule Thiet; Melissa Greer Rosenstein
Women with a history of second-stage labor dystocia have a slightly higher vaginal birth after cesarean delivery rate compared with those with first-stage labor dystocia.
- 864 Risk factors for retained placenta**
Elizabeth M. Coviello; Katherine L. Grantz; Chun-Chih Huang; Tara E. Kelly; Helain J. Landy
Stillbirth at any gestational age, delivery between 24 and 27 6/7 weeks' gestation, and maternal age above 30 years were risk factors for retained placenta.

EDUCATION

- 867 Ethical issues identified by obstetrics and gynecology learners through a novel ethics curriculum**
Rachel B. Mejia; Laura A. Shinkunas; Ginny L. Ryan
This novel and dynamic obstetrics and gynecology ethics curriculum provides insight into learner-identified bioethics issues that may vary for medical students and residents.

IMAGES IN OBSTETRICS

- 870 Ultrasound-guided manipulation of fetal entrapment by a large uterine fibroid**
 Cheryl Dinglas; Nadia Kunzier; Jenna Sanchi; Martin Chavez; Anthony Vintzileos
Ultrasound-guided manipulation can be used to dislodge an entrapped fetus from fibroid compression.

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SURGEON'S CORNER

871 Metroplasty to treat chronic pelvic pain resulting from outflow tract müllerian anomalies

Bala Bhagavath; Eric Behrman; Bijan W. Salari; Wendy Vitek; Sheela Barhan; Jerome L. Yaklic; Steven R. Lindheim

Robot-assisted laparoscopic metroplasty for the management of chronic pelvic pain in patients with müllerian outflow tract anomalies.

RESEARCH LETTERS

873 The use of clinical characteristics to help prevent morcellation of leiomyosarcoma: An analysis of 491 cases

John K. Chan; Austin B. Gardner; Caroline A. Thompson; Daniel S. Kapp

874 Impact of a robotic simulation program on resident surgical performance

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876 Factors that affect duration of untreated illness in pregnant women with bipolar disorder

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877 Severe intrahepatic cholestasis of pregnancy is a risk factor for preeclampsia in singleton and twin pregnancies

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878 Indomethacin as a tocolytic harmful to preterm infant

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879 Prenatal aneuploidy screening using cell-free DNA

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880 A cautionary note about Monsel's solution

Frank R. Witter

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881 Amniocentesis vs chorionic villous sampling as a diagnostic test after an abnormal noninvasive prenatal testing result

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