There is NO diagnosis of twins
Kenneth J. Moise Jr; Anthony Johnson
See related article, page 3

Twin-twin transfusion syndrome: an ethics-based and evidence-based argument for clinical research
David M. Stamilio; William D. Fraser; Thomas R. Moore
Normative equipoise exists regarding the optimal treatment strategy for mild twin-twin transfusion syndrome that justifies the need for randomized clinical trials of interventions.
See related editorial, page 1

Angiogenic imbalances: the obstetric perspective
Jimmy Espinoza; John E. Uckele; Robert A. Starr; David E. Seubert; Andres F. Espinoza; Stanley M. Berry
Accumulating evidence indicates that angiogenic imbalances may participate in the mechanisms of disease of some life-threatening pregnancy complications.

The Strategic Alternative for Funding Education (SAFE) is a novel new approach that is a solution to the pending medical school tuition crisis.

The article summaries that appear in the Journal are abbreviated versions of Research and Clinical Opinion articles published in full on the Journal’s website at www.AJOB.org. While the great majority of these summaries are written by Journal staff and all are approved by the bylined authors and Journal editors, some summaries are written by the original authors and prepared for publication by Journal staff.
Abnormal anal cytology in HIV-infected women
Richa Tandon; Amy S. Baranoski; Faye Huang; Antonio de las Morenas; Olivera Vragovic; Meg Sullivan; Elizabeth A. Stier
This study assessed the prevalence of anal and cervical cytologic abnormalities and human papillomavirus infection in a population of women at an urban medical center who were infected with the human immunodeficiency virus.

Does surgical volume influence short-term outcomes of laparoscopic hysterectomy?
Elena Tunitsky; Ayse Citil; Reyhan Ayaz; Sertac Esin; Alexander Knee; Oz Harmanli
In a total of 1016 cases of laparoscopic hysterectomy, operating time and conversion rate decreased with increasing surgical volume, whereas complication rate did not change.

Transumbilical single-port access versus conventional total laparoscopic hysterectomy: surgical outcomes
Ga Won Yim; Yong Wook Jung; Jiheum Paek; San Hui Lee; Ha Yan Kwon; Eun Ji Nam; Sunghoon Kim; Jae Hoon Kim; Young Tae Kim; Sang Wun Kim
Single-port access total laparoscopic hysterectomy is a feasible method for hysterectomy with lower postoperative pain and better surgical outcomes compared with conventional laparoscopic hysterectomy.

Comparison of oral nonsteroidal analgesic and intrauterine local anesthetic for pain relief in uterine fractional curettage: a randomized, double-blind, placebo-controlled trial
Olus Api; Bahar Ergen; Murat Api; Vedat Ugurel; Muge Balcin Emeksiz; Orhan Unal
Intrauterine lidocaine or oral dexketoprofen shows effective analgesia in premenopausal women undergoing fractional curettage; however, their combination does not work better in further reduction of pain, whereas in postmenopausal women, only the combination provides significant analgesia.

Efficacy of bleeding control using a large amount of highly diluted vasopressin in laparoscopic treatment for interstitial pregnancy
Hwa Sook Moon; Sang Gab Kim; Gun Sik Park; Jin Kuk Choi; Ja Seong Koo; Bo Sun Joo
Injection of a large amount of highly diluted vasopressin is safe and effective in bleeding control in laparoscopic management of interstitial pregnancy.
Noninvasive diagnosis of intraamniotic infection: proteomic biomarkers in vaginal fluid

Jane Hitti; Jodi A. Lapidus; Xinfang Lu; Ashok P. Reddy; Thomas Jacob; Surendra Dasari; David A. Eschenbach; Michael G. Gravett; Srinivasa R. Nagalla

Vaginal fluid proteome analysis identified novel biomarkers, including acute phase reactants and immune modulators, associated with intraamniotic infection among women in preterm labor.

EDITORS' COMMENTARY: This study maintains that proteomic analysis of vaginal fluid can identify biologic markers that are associated with the presence of intraamniotic infection. This work is important because it opens avenues for the noninvasive diagnosis of intraamniotic infection. Challenges will include the demonstration that the biomarkers would be sensitive enough to exclude microbial invasion of the amniotic cavity. This study is an example of the promise of high-dimensional biology in preterm labor.

Prenatal life events stress: implications for preterm birth and infant birthweight

Peng Zhu; Fangbiao Tao; Jiahu Hao; Ying Sun; Xiaomin Jiang

Prenatal severe life events, especially in the first trimester, may play an important role in increasing the risk of preterm birth and low birthweight.

Cosmetic outcomes of various skin closure methods following cesarean delivery: a randomized trial

Antonella Cromi; Fabio Ghezzi; Alessandra Gottardi; Mario Cherubino; Stefano Uccella; Luigi Valdatta

Skin closure following cesarean delivery using either staples or subcuticular sutures results in equivalent cosmetic appearance of the scar.

Emergency department use during the postpartum period: implications for current management of the puerperium

Steven L. Clark; Michael A. Belfort; Gary A. Dildy; Jane Englebright; Laura Meints; Janet A. Meyers; Donna K. Frye; Jonathan A. Perlin

The current structure of traditional postpartum care is inadequate to avoid most emergency department visits and readmissions.

Acceleration/ejection time ratio in the fetal pulmonary artery predicts fetal lung maturity

Humberto Azpurua; Errol R. Norwitz; Katherine H. Campbell; Edmund F. Funai; Christian M. Pettker; Michael Kleine; Mert O. Bahtiyar; Herbert Malkus; Joshua A. Copel; Stephen F. Thung

Sonographic assessment of the acceleration-time/ejection-time ratio in the fetal pulmonary artery correlates with the lecithin/sphingomyelin ratio and is a promising noninvasive tool to predict fetal lung maturity.
42 Longitudinal brain perfusion changes in near-term small-for-gestational-age fetuses as measured by spectral Doppler indices or by fractional moving blood volume
Rogelio Cruz-Martinez; Francesc Figueras; Edgar Hernandez-Andrade; Bienvenido Puerto; Eduard Gratacos
Brain redistribution in small-for-gestational-age fetuses was detected earlier and in a higher proportion of cases using brain tissue perfusion measured by fractional moving blood volume than cerebral spectral Doppler indices.

45 Usefulness of myocardial tissue Doppler vs conventional echocardiography in the evaluation of cardiac dysfunction in early-onset intrauterine growth restriction
Montse Comas; Fatima Crispi; Rogelio Cruz-Martinez; Josep Maria Martinez; Francesc Figueras; Eduard Gratacos
Tissue Doppler is a more sensitive tool to detect cardiac dysfunction in intrauterine growth restriction fetuses as compared with conventional echocardiography.

47 Administration of steroids after 34 weeks of gestation enhances fetal lung maturity profiles
Anthony Shanks; Gilad Gross; Tammy Shim; Jennifer Allsworth; Yoel Sadovsky; Ibrahim Bildirici
Administration of steroids after 34 weeks' gestation enhances fetal lung maturity profiles in pregnancies with documented fetal lung immaturity.

49 Increased risk of adverse pregnancy outcomes among women affected by herpangina
Yi-Hua Chen; Hsiu-Chen Lin; Herng-Ching Lin
Herpangina was independently associated with a 2.29- and 1.67-fold increased risk of having low birthweight and preterm infants, respectively, compared with unaffected women.

52 Maternal use of bupropion and risk for congenital heart defects
Sura Alwan; Jennita Reefhuis; Lorenzo D. Botto; Sonja A. Rasmussen; Adolfo Correa; Jan M. Friedman; and the National Birth Defects Prevention Study
A large, retrospective case-control study suggested a doubling of the risk for left outflow tract heart defects among infants of women with first-trimester bupropion use.

54 Clinical outcome in neonates with twin anemia-polycythemia sequence
Enrico Lopriore; Femke Slaghekke; Dick Oepkes; Johanna M. Middeldorp; Frank P. Vandenbussche; Frans J. Walther
Neonatal death and severe neonatal morbidity in twin anemia-polycythemia sequence is similar to gestation age–matched monochorionic twin control infants.

56 Puerperal loss (lochia) in women with or without inherited bleeding disorders
Claudia Chi; Mira Bapir; Christine A. Lee; Rezan A. Kadir
Pictorial blood assessment chart was used to assess lochia; women with inherited bleeding disorders had longer duration of lochia compared to women without bleeding disorder.

(continued on page 10A)
RESEARCH (continued from page 8A)

58 Infant death among Ohio resident infants born at 32 to 41 weeks of gestation
Edward F. Donovan; John Besl; John Paulson; Barbara Rose; Jay Iams; for the Ohio Perinatal Quality Collaborative
Analyses of births and deaths determined that likelihood of infant death was increased at each gestational age from 32–38 weeks compared with 39–40 weeks.
See Journal Club, page 86

60 Down syndrome maternal serum screening in patients with renal disease
Alexandra Benachi; Sophie Dreux; Sahar Kaddioui-Maalej; Isabelle Czerkiewicz; Fadi Fakhouri; Eric Thervet; Françoise Muller
Down syndrome maternal serum screening using free β-human chorionic gonadotropin is not applicable in patients with renal disease, and human chorionic gonadotropin can be used with caution.

62 Effects of seat belts worn by pregnant drivers during low-impact collisions
Yasuki Motozawa; Masahito Hitosugi; Takeshi Abe; Shogo Tokudome
We biomechanically validated the effects of wearing seat belts during pregnancy using frontal and rear impact tests on an anthropomorphic pregnant dummy.

65 Stromal cell–specific apoptotic and antiestrogenic mechanisms may explain uterine defects in humans after clomiphene citrate therapy
Magdalena Nutu; Yi Feng; Emil Egecioglu; Birgitta Weijdegård; Elisabet Stener-Victorin; Ruijin Shao
A cellular and molecular mechanism-based explanation is given for the discrepancy between high ovulation rates and low successful pregnancy rates in women who have been treated with clomiphene citrate.

EDITORS’ COMMENTARY: Clomiphene citrate has been a main therapeutic agent for anovulatory infertility. However, a discrepancy between the rates of ovulation and successful pregnancy remains not explained adequately. Using a rodent model, the authors present possible molecular mechanism of the effects of clomiphene on the endometrium (ie, stromal cell apoptosis and other morphologic changes) that might offer an explanation. This hypothesis must be tested in human subjects.

ONCOLOGY

68 Chemosensitivity testing with ChemoFx and overall survival in primary ovarian cancer
Thomas J. Herzog; Thomas C. Krivak; Amanda Nickles Fader; Robert L. Coleman
Advanced-stage ovarian cancer patients treated with drugs found to be responsive by the ChemoFx marker had longer overall survival than those treated with nonresponsive drugs.

70 A systematic literature review of vitamin D and ovarian cancer
Linda S. Cook; Heather K. Neilson; Diane L. Lorenzetti; Robert C. Lee
This systematic review did not find substantive evidence supporting a reduction in risk for ovarian cancer occurrence or mortality with greater vitamin D exposures.
Significance of human papillomavirus genotyping with high-grade cervical intraepithelial neoplasia treated by a loop electrosurgical excision procedure

Woo Dae Kang; Min Jeong Oh; Seok Mo Kim; Jong Hee Nam; Chang Soo Park; Ho Sun Choi

Persistent infection with the same high-risk human papillomavirus (HPV) genotype, especially HPV-16 and HPV-18, should be considered a risk factor for developing residual/recurrent high-grade cervical intraepithelial neoplasia.

BASIC SCIENCE: OBSTETRICS

Epigallocatechin-3-gallate ameliorates hyperglycemia-induced embryonic vasculopathy and malformation by inhibition of Foxo3a activation

Peixin Yang; Hua Li

Epigallocatechin-3-gallate blocks the adverse effects of hyperglycemia on embryonic development via inhibition of Foxo3a activation.

Fetal alcohol syndrome: cardiac birth defects in mice and prevention with folate

Maria Serrano; Mingda Han; Pilar Brinez; Kersti K. Linsk

Folate prevents alcohol-induced cardiac valve defects in vertebrate embryos by modulating the Wnt/β-catenin pathway during cardiogenesis.

IMAGING

Calculation of gestational age in late second and third trimesters by ex vivo magnetic resonance spectroscopy of amniotic fluid

Brad R. Cohn; Emily Y. Fukuchi; Bonnie N. Joe; Mark G. Swanson; John Kurhanewicz; Jingwei Yu; Aaron B. Caughey

Statistical modeling accurately predicted gestational age with the use of concentrations of alanine, creatinine, glucose, and valine that were determined with magnetic resonance spectroscopy performed on second- and third-trimester amniotic fluid samples.

EDUCATION

Objective assessment of vaginal surgical skills

Chi Chiung Grace Chen; Abner Korn; Christopher Klingele; Matthew D. Barber; Marie Fidela R. Paraiso; Mark D. Walters; J. Eric Jelovsek

The Vaginal Surgical Skills Index is a reliable and valid instrument to assess vaginal surgical skills.

Establishing cutoff scores on assessments of surgical skills to determine surgical competence

J. Eric Jelovsek; Mark D. Walters; Abner Korn; Christopher Klingele; Nikki Zite; Beri Ridgeway; Matthew D. Barber

Standard-setting methods using cutoff scores may be used to establish minimum competence in vaginal surgical skills while performing vaginal hysterectomy.
**GENETICS**

**83** Association of fetal inflammation and coagulation pathway gene polymorphisms with neurodevelopmental delay at age 2 years
Erin A. S. Clark; Lisa Mele; Ronald J. Wapner; Catherine Y. Spong; Yoram Sorokin; Alan Peaceman; Jay D. Iams; Kenneth J. Leveno; Margaret Harper; Steve N. Caritis; Menachem Miodovnik; Brian M. Mercer; John M. Thorp; Susan M. Ramin; Marshall Carpenter; Dwight J. Rouse; for the Eunice Kennedy Shriver National Institute of Child Health and Human Development Maternal-Fetal Medicine Units Network
Fetal inflammation pathway gene polymorphisms in interleukin (IL) 1β, IL-4R, and IL-6 may be associated with neurodevelopmental delay at age 2 years.

**JOURNAL CLUB**

**86** Infant death among Ohio residents: Donovan et al
Luisa A. Wetta; Alan T. N. Tita; Todd R. Jenkins, Associate Editor
The current uproar over health care suggests that providers, payers, patients, and policy makers cannot work together to resolve public health problems. An Ohio initiative proves otherwise, and Journal Club participants were much impressed with the endeavor and with the analysis of data that was provided through this extraordinary joint effort.

See related article, page 58 and full discussion, page e8

**IMAGES IN GYNECOLOGY**

**88** Really, really permanent
Enrico M. Messalli; Salvatore Annona
Nine years into menopause, the patient had irregular bleeding. The cause was a long-delayed complication of cesarean section.

**PROFESSIONAL AND EDUCATIONAL OPPORTUNITIES**

**21A** Classified advertising

(continued on page 17A)
Discussion: ‘Infant death among Ohio residents’ by Donovan et al
Moderator: Alan T. N. Tita; discussants: Luisa A. Wetta; Elizabeth Bates; Amy Doss; Jamie L. Erwin
Patients who get restless toward the end of pregnancy might request labor induction. Journal Club members agreed that results from a new investigation of gestational age at delivery and infant survival would be particularly helpful when counseling these women. The data also bolstered an important public health initiative.
See related articles, pages 58 and 86

Carbamyl phosphate synthetase deficiency and postpartum hyperammonemia
Yasushi Kotani; Mitsuru Shiota; Masahiko Umemoto; Mitsuhiro Tsuritani; Hiroshi Hoshiai
In the case of carbamyl phosphate synthetase deficiency reported herein, the patient developed hyperammonemia on 2 separate occasions triggered by parturition.

Aspiration of immature oocytes during cesarean section for fertility preservation and future surrogacy
Avi Ben-Haroush; Onit Sapir; Benjamin Fisch
Oocytes can be aspirated during cesarean section for fertility preservation or future use.

Screening for cytomegalovirus during pregnancy
Stuart P. Adler; Giovanni Nigro; Lenore Pereira
Reply, page e15
Alison G. Cahill; Anthony O. Odibo; George A. Macones, Associate Editor

Is low maximal urethral closure pressure alone a determinant for failure after transobturator midurethral sling placement?
Marco Calcagno; Pierluigi Benedetti Panici
Reply, page e16
Marijn Houwert; Harry A. Vervest

Gastroschisis and intrauterine growth restriction
Russ Jelsema
Reply, page e17
Sara S. Nicholas; Anthony O. Odibo