

# ULTRASOUND

## in Obstetrics & Gynecology

Editor-in-Chief: Professor Anthony Odibo

30th Anniversary Issue

The Official Journal of  
the International Society of Ultrasound  
in Obstetrics and Gynecology



## CONTENTS

### EDITOR'S NOTE

- 7 UOG now and beyond!  
A. O. Odibo

### OPINIONS

- 9 The Birth of ISUOG and UOG: a personal recollection  
S. Campbell
- 13 ISUOG at 30 years: looking back to the future  
C. M. Bilardo
- 15 Resolution brings women's health into focus  
B. R. Benacerraf
- 19 Spontaneous preterm labor can be predicted and prevented  
R. Romero
- 22 Intrauterine surgery: how far we have come in 30 years  
K. Hecher
- 25 Considering evidence in the management of fetal growth restriction  
A. A. Baschat
- 29 Integration of nuchal translucency screening into the first-trimester fetal anatomy scan: the time has come  
S. Yagel
- 32 Cesarean scar pregnancy: a therapeutic dilemma  
I. E. Timor-Tritsch
- 34 Maternal birth trauma: how imaging can (and should) change clinical practice  
H. P. Dietz
- 36 Sonographic confirmation of fetal position before operative vaginal delivery should be recommended in clinical guidelines  
T. Ghi
- 38 Evolution of fetal cardiac imaging in 30 years of ISUOG  
R. Chaoui

### SYSTEMATIC REVIEW

- 43 Congenital heart disease and the Diagnostic yield with Exome sequencing (CODE) study: prospective cohort study and systematic review  
F. Mone, R. Y. Eberhardt, R. K. Morris, M. E. Hurles, D. J. McMullan, E. R. Maher, J. Lord, L. S. Chitty, J. L. Giordano, R. J. Wapner, M. D. Kilby and the CODE Study Collaborators

### ORIGINAL PAPERS

- 52 Competing-risks model for prediction of small-for-gestational-age neonate from biophysical and biochemical markers at 11–13 weeks' gestation  
I. Papastefanou, D. Wright, A. Syngelaki, K. Souretis, E. Chrysanthopoulou and K. H. Nicolaides
- 62 Ten-year experience of protocol-based management of small-for-gestational-age fetuses: perinatal outcome in late-pregnancy cases diagnosed after 32 weeks  
E. Meler, E. Mazarico, E. Eixarch, A. Gonzalez, A. Peguero, J. Martinez, D. Boada, K. Vellvé, M. D. Gomez-Roig, E. Gratacós and F. Figueras
- 70 Determination of fetal heart rate short-term variation from umbilical artery Doppler waveforms  
L. S. Cabill, G. Stortz, A. Ravi Chandran, N. Milligan, S. Shinar, C. L. Whitehead, S. R. Hobson, S. Millard, C. K. Macgowan, J. C. Kingdom, J. G. Sled and A. A. Baschat
- 75 Ophthalmic artery Doppler in combination with other biomarkers in prediction of pre-eclampsia at 19–23 weeks' gestation  
I. Sapantzoglou, A. Wright, M. Gallardo Arozana, R. Vallenás Campos, M. Charakida and K. H. Nicolaides
- 84 Diagnostic accuracy of first-trimester combined screening for early-onset and preterm pre-eclampsia at 8–10 compared with 11–13 weeks' gestation  
M. Mendoza, P. García-Manau, S. Arévalo, M. Avilés, B. Serrano, M. Á. Sánchez-Durán, I. García-Ruiz, E. Bonacina and E. Carreras
- 91 Effectiveness of contingent screening for placenta accreta spectrum disorders based on persistent low-lying placenta and previous uterine surgery  
C. M. Coutinho, V. Giorgione, L. Noel, B. Liu, E. Chandrabharan, J. Pryce, A. P. Frick, B. Thilaganathan and A. Bhide

- 97 Accuracy of prenatal ultrasound screening to identify fetuses infected by cytomegalovirus which will develop severe long-term sequelae  
M. Leruez-Ville, S. Ren, J.-F. Magry, F. Jacquemard, S. Couderc, P. Garcia, A.-M. Maillette, M. Benard, D. Pinquier, P. Minodier, D. Astruc, H. Patural, M. Ugolin, S. Parat, B. Guillois, A. Garenne, M. Parodi, L. Bussières, J. Stirnemann, P. Sonigo, A. E. Millscher and Y. Ville
- 105 Safety and efficacy of smart tracheal occlusion device in diaphragmatic hernia lamb model  
D. Basurto, N. Sananès, T. Bleeser, I. Valenzuela, N. De Leon, L. Joyeux, E. Verbeken, S. Vergote, L. Van der Veen, F. M. Russo and J. Deprest
- 113 Fully percutaneous fetoscopic repair of myelomeningocele: 30-month follow-up data  
D. Diehl, F. Belke, T. Kohl, R. Axt-Fliedner, J. Degenhardt, A. Khaleeva, F. Oehmke, D. Faas, H. Ehrhardt, M. Kolodziej, E. Uhl, A. C. Windhorst and B. A. Neubauer
- 119 Fetal aortic valvuloplasty may rescue fetuses with critical aortic stenosis and hydrops  
A. Tulzer, W. Arzt and G. Tulzer
- 126 Outcome of monochorionic twin pregnancy complicated by Type-III selective intrauterine growth restriction  
S. Shinar, W. Xing, V. Pruthi, C. Jianping, F. Slaghekke, S. Groene, E. Lopriore, L. Lewi, I. Couck, Y. Yinon, L. Batsry, L. Raio, S. Amylidi-Mohr, D. Baud, F. Kneuss, P. DeKoninck, J. Moscou, J. Barrett, N. Melamed, G. Ryan, L. Sun and T. Van Mieghem
- 134 Optimal timing of fetal reduction from twins to singleton: earlier the better or later the better?  
R. Zemet, J. Haas, Y. Bart, E. Barzilay, M. Shapira, K. Zloto, R. Hershenzon, B. Weisz, Y. Yinon, S. Mazaki-Tovi and S. Lipitz
- 141 Differences in post-traumatic stress, anxiety and depression following miscarriage or ectopic pregnancy between women and their partners: multicenter prospective cohort study  
J. Farren, M. Jalmbrant, N. Falconieri, N. Mitchell-Jones, S. Bobdiwala, M. Al-Memar, S. Tapp, B. Van Calster, L. Wynants, D. Timmerman and T. Bourne
- 149 Predictive value of presence of amniotic sac without visible embryonic heartbeat in diagnosis of early embryonic demise  
W. M. Dooley, L. De Braud, N. Thanasis, M. Memtsa, E. Jauniaux and D. Jurkovic
- 155 Ultrasound image analysis using deep neural networks for discriminating between benign and malignant ovarian tumors: comparison with expert subjective assessment  
F. Christiaens, E. L. Epstein, E. Smedberg, M. Åkerlund, K. Smith and E. Epstein
- 164 Typical ultrasound features of various endometrial pathologies described using International Endometrial Tumor Analysis (IETA) terminology in women with abnormal uterine bleeding  
T. Van den Bosch, J. Y. Verbakel, L. Valentijn, L. Wynants, B. De Cock, M. A. Pascual, F. P. G. Leone, P. Sladkevicius, J. L. Alcazar, A. Votino, R. Fruscio, C. Lanzani, C. Van Holsbeke, A. Rossi, L. Jokubkiene, M. Kudla, A. Jakab, E. Domali, E. Epstein, C. Van Pachterbeke, T. Bourne, B. Van Calster and D. Timmerman

### CORRESPONDENCE

- 173 Re: ISUOG Practice Guidelines (updated): sonographic examination of the fetal central nervous system. Part 1: performance of screening examination and indications for targeted neurosonography  
S. Yagel and D. V. Valsky
- 174 Reply  
G. Malinger, D. Paladini, K. K. Haratz, A. Monteagudo, G. Pilu and I. E. Timor-Tritsch
- 175 Moving beyond the diatribe on ultrasound vs MRI  
D. Di Mascio, D. Buca and F. D'Antonio
- 176 Reply  
B. J. van der Kroop and J. I. P. de Vries, on behalf of the coauthors
- 177 Direct access to investigational interventions outside the trial process: ethical reflections on the TOTAL-trial debate  
N. Crombag, D. Pizzolato and K. Dierickx

### IMAGE GALLERY

- 180 UOG Art Gallery