

THE JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE

VOLUME 16 • SUPPLEMENT 1 • OCTOBER 2004

Editors-in-Chief

Gian Carlo Di Renzo Dev Maulik Ola Didrik Saugstad

BOOK OF ABSTRACTS
XIX European Congress of
Perinatal Medicine

Athens, Greece
October 13-16, 2004

**Covered in
Index Medicus
and MEDLINE**



Parthenon Publishing

ISSN: 1476-7058

THE JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE

Volume 16 Supplement 1

October 2004

ISSN: 1476-7058

The Official Journal of

The European Association of Perinatal Medicine

The Federation of Asia and Oceania Perinatal Societies

The International Society of Perinatal Obstetricians

EDITORS-IN-CHIEF

Gian Carlo Di Renzo
Italy

Dev Maulik
USA

Ola Didrik Saugstad
Norway

ASSOCIATE EDITORS

Charles Lockwood (USA)
Kypros H. Nicolaides (UK)

E. Albert Reece (USA)
Roberto Romero (USA)

Istvan Seri (USA)



The Parthenon Publishing Group

International Publishers in Medicine, Science & Technology

A MEMBER OF THE TAYLOR & FRANCIS GROUP

THE JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE

THE EDITORIAL BOARD

Aris J. Antsaklis
Athens, Greece

Eduardo Bancalari
Miami, USA

Jose M. Belizán
Montevideo, Uruguay

Karin Blakemore
Baltimore, USA

Isaac Blickstein
Rehovot, Israel

Haywood L. Brown
Indianapolis, USA

The-Hung Bui
Stockholm, Sweden

Luis Cabero Roura
Barcelona, Spain

Jose M. Carrera
Barcelona, Spain

Rabih Chaoui
Berlin, Germany

Frank A. Chervenak
New York, USA

Donald Coustan
Providence, USA

Luis B. Curet
Albuquerque, USA

Maria Delivoria-Papadopoulos
Philadelphia, USA

Jan Deprest
Leuven, Belgium

Lawrence Devoe
Augusta, USA

Michael Divon
New York, USA

Mark Evans
New York, USA

Fabio Facchinetti
Modena, Italy

Peter Gluckman
Auckland, New Zealand

Robert L. Goldenberg
Birmingham, USA

Anne Greenough
London, UK

Mary E. Hannah
Toronto, Canada

Michael Harrison
San Francisco, USA

Frank Hertelendy
St Louis, USA

Wolfgang Holzgreve
Basel, Switzerland

T'sang T'ang Hsieh
Taipei, Taiwan

Peter W. Husslein
Vienna, Austria

Janna G. Koppe
Amsterdam, The Netherlands

Asim Kurjak
Zagreb, Croatia

Oded Langer
New York, USA

Ricardo N. Laurini
Porto, Portugal

Karel Maršál
Lund, Sweden

James N. Martin
Jackson, USA

Brian M. Mercer
Cleveland, USA

Om P. Mishra
Philadelphia, USA

Bryan F. P. Mitchell
Edmonton, Canada

Kenneth J. Moise Jr
Chapel Hill, USA

John Newnham
Subiaco, Australia

Umberto Nicolini
Milan, Italy

William F. O'Brien
Tampa, USA

Hein Odendaal
Tygerberg, South Africa

Felice Petraglia
Siena, Italy

Simcha Pollack
New York, USA

Rubén A. Quintero
Tampa, USA

Rangasamy Ramanathan
Los Angeles, USA

Ch. V. Rao
Louisville, USA

John Repke
Omaha, USA

Michael G. Ross
Torrance, USA

George R. Saade
Galveston, USA

Joseph G. Schenker
Jerusalem, Israel

Theresa Scholl
Camden, USA

Gunnar Sedin
Uppsala, Sweden

Baha Sibai
Cincinnati, USA

Umberto Simeoni
Marseille, France

Ricardo Vauy
Santiago, Chile

Linda VanMarter
Boston, USA

Yves Ville
Poissy, France

Anthony M. Vintzileos
New Brunswick, USA

Gerard H. A. Visser
Utrecht, The Netherlands

Carl P. Weiner
Baltimore, USA

Bruce Young
New York, USA

THE JOURNAL OF
**MATERNAL-FETAL
& NEONATAL
MEDICINE**

Volume 16 Supplement 1

October 2004

ISSN: 1476-7058

BOOK OF ABSTRACTS

XIX European Congress of
Perinatal Medicine

*Athens, Greece
October 13–16, 2004*



XIX EUROPEAN CONGRESS OF
PERINATAL MEDICINE



FC2.10.1

SCREENING FOR PRE-ECLAMPSIA BY USING MATERNAL SERUM INHIBIN A, ACTIVIN A, β -HCG, UE3, AND AFP LEVELS AND UTERINE ARTERY DOPPLER IN THE SECOND TRIMESTER OF PREGNANCY

Emine A., Kavak Z.N., Gokaslan H., Elter K., Pekin T.
Marmara University School Of Medicine, Istanbul, Turkey

Aim: To analyze the predictive power of maternal serum inhibin A, aktivin A, β -human chorionic gonadotropin (β -HCG), unconjugated estriol (uE3), and alpha-feto protein (AFP) levels and uterine artery Doppler in the second trimester of pregnancy in screening for pre-eclampsia. **Materials and methods:** Maternal serum inhibin A, aktivin A, β -HCG, uE3, AFP levels and uterine artery Doppler were determined in 198 low-risk, healthy pregnant women in the second trimester of pregnancy. Serum samples were collected between the 16th and 18th weeks of gestation, and Doppler investigation was performed between the 24th and 26th weeks of gestation. Routine antenatal follow-up was performed to all pregnant women until delivery. Receiver operating characteristic curves were created to analyze the predictive power of the above parameters. Serum values were expressed as multiples of median (MoM).

Results: The rate of pre-eclampsia was 8.1% (16/198). Maternal serum inhibin A, aktivin A, β -HCG, AFP levels and uterine artery RI values in pre-eclamptic pregnancies, which were 3.36 MoM, 12.33 MoM, 1.69 MoM, 1.3 MoM, and 0.69 MoM, respectively, were significantly higher than those in healthy pregnancies, which were 0.99 MoM, 1.0 MoM, 1.3 MoM, 0.99 MoM, and 0.54 MoM, respectively. Sensitivity and specificity were 64% and 81% for the serum AFP level with the optimum cut-off value of 1.3 MoM, respectively. Corresponding values were 92% and 78% for serum aktivin A level with the optimum cut-off value of 6.58 MoM, were 71% and 95% for the serum inhibin A level with the optimum cut-off value of 2.78 MoM, and were 57% and 83% for the serum β -HCG level with the optimum cut-off value of 1.75 MoM, respectively. Screening with RI had a sensitivity of 64% and a specificity of 91% with the optimum cut-off value of 0.65. **Discussion:** Maternal serum inhibin A, aktivin A, β -HCG, and AFP levels and uterine artery Doppler seem to be useful screening tests during the second trimester for pre-eclampsia. Serum inhibin A and aktivin A levels may be better for screening purposes because of their higher predictive values.

FC2.10.2

THE INFLUENCE OF BIOPHYSICAL PROPHILE AND ANTENATAL UMBILICAL ARTERY DOPPLER ASSESSMENT ON PERINATAL OUTCOME IN PREGNANCIES COMPLICATED WITH HYPERTENSIVE DISORDERS

Babovic Ivana, Opalic Jasna, Petronijevic Milos, Vrzic-Petronijevic Svetlana, Mladenovic-Bogdanovic Zorica, Momcilov Paja

Clinical Center of Serbia, Institute of Gynecology and Obstetrics, Belgrade, Serbia and Montenegro

Objective: The aim of the study to evaluate the value of the antenatal umbilical artery Doppler assessment and fetal biophysical profile (BPP) in predicting perinatal outcome in pregnancies complicated with hypertensive disorders (pregnancy-induced hypertension or PIH and preeclampsia or PE). **Material and Methods:** A retrospective study of 71 patients with hypertensive disorders who delivered in our Institute during 2003 year. BPP and umbilical artery Doppler were performed for antenatal fetal testing. Perinatal outcome is determined in Apgar scores at the 1st and 5th minutes. Statistical analysis was performed by: Kruskal Wallis, Wilcoxon signed ranks, Student's t-test and analysis of variance (ANOVA). **Results:** There were 70.8% (48/71) vaginal deliveries and 30.2% (23/71) delivered by urgent cesarean section (CS) due to fetal distress. There is statistically significant difference between BPP and Apgar-5 ($p < 0.05$) and no difference could be found between umbilical artery Doppler and Apgar-5 ($p = 0.625$) in vaginally delivered group. In the urgent CS group there is statistical significant difference between umbilical artery Doppler and BPP ($p = 0.029$) as well as between BPP and Apgar-1 ($p = 0.008$). There is no significant difference between BPP and Apgar-5 ($p = 0.534$) in the same group. **Discussion:** BPP determines perinatal outcome (Apgar-5) after vaginal delivery in pregnancies complicated with hypertensive disorders. Perinatal outcome (Apgar-1) after urgent CS is determined with umbilical artery Doppler and BPP. **Conclusion:** Low biophysical score indicates preparations for elective cesarean section in order to decline perinatal morbidity and mortality rates in pregnancies complicated with hypertensive disorders. **Literature:** Harman C.R. Assessment of fetal health, in maternal-fetal medicine: principles and practice, Creasy R.K. Ed. 357-401. The Saunders Company, Philadelphia, 2004. Matijevic R. Terminal parts of uteroplacental circulation in pregnancy: assessment by color/pulsed Doppler ultrasound. *Ultrasound Rev Obstet Gynecol*, 2001;1: 262-274.