Ultrasound Meets Magnetic Resonance

Rome
April 22nd-24th 2015

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Scientific Inspiring Committee
Yves Ville
Daniela Prayer

Congress Scientific Committee
Gustavo Malinger
Gianluca Pilu
Luca Ramenghi
Andrea Rossi

12.00 - 12.20 INTRODUCTION
Yves Ville - Luca Ramenghi

12.20 - 13.00 KEY NOTE LECTURE 1
DETAILED FETAL MRI EXAMINATION, AN ALTERNATIVE TO FETAL ULTRASOUND EXAMINATION?
Anne Elodie Millischer (Paris, France)

SESSION 1: ADVANCED MRI TECHNIQUE FOR THE FETAL BRAIN
Chairpersons: Gustavo Malinger (Tel Aviv, Israel) - Anne Elodie Millischer (Paris, France)

13.00 - 13.30 APPLICATION OF INTRAUTERINE DIFFUSION TENSOR IMAGING
Christian Mitter (Vienna)

13.30 - 13.50 Discussion

13.50 - 14.20 ABNORMALITIES OF FETAL GANGLIONIC EMINENCE
Andrea Righini (Milan, Italy)

14.20 - 14.50 QUANTITATIVE ASSESSMENT OF FETAL BRAIN DEVELOPMENT THOUGH VOLUMETRIC 3D MRI
Ellen Grant (Boston, USA)

14.50 - 15.10 Discussion

15.10 - 15.30 BREAK

SESSION 2: CONTROVERSIES IN DIAGNOSIS OF THE POSTERIOR FOSSA MALFORMATIONS
Chairperson: Yves Ville (Paris, France)

15.30 - 16.00 BLAKE’S CYST. IN UTERO DIAGNOSIS AND PITFALLS
Dario Paladin (Genoa, Italy)

16.00 - 16.30 BLAKE’S CYST. OUTCOME
Andrea Righini (Milan, Italy)

16.30 - 17.00 VARIETY OF POSTERIOR FOSSA MALFORMATIONS AND OUTCOME
Laurent Guibaud (Lyon, France)

17.00 - 17.30 Discussion
(024) A CASE OF VENTRICULOMEGALY
S. Goergen (1,2); G. Whiteley 1; M. Fahey (3,4)
1 Monash Imaging, Monash Health, Clayton, Australia; 2 Department of Surgery, Monash University, Clayton, Australia; 3 Paediatric Neurosurgery Unit, Monash Health, Clayton, Australia; 4 Department of Paediatrics, Monash University, Clayton, Australia Stacy Goergen

(025) EMERGING CEREBELLAR PATHWAYS IN HUMANS FROM NEWBORNS TO YOUNG ADULTS USING HIGH ANGULAR RESOLUTION DIFFUSION MR TRACTOGRAPHY
T. J. Re; A. Righini; P.E. Grant; E. Takahashi
Radiology, Boston Children’s Hospital (BCH), Harvard Medical School, Boston, U.S.A; Radiology, Buzzi Children’s Hospital of Milan, Italy; Division of Newborn Medicine, Dept. of Medicine, BCH, Harvard Medical School, Boston, U.S.A. Thomas J Re

(001) GRAN ROUND: FETAL BRAIN MRI AND MRS IN CORRELATION WITH LONG-TERM NEURODEVELOPMENTAL IMPAIRMENT
V. Banovic; M. Banovic; S. Skrablin; I. Babic
Department of Obstetrics and Gynecology Clinical Hospital Center Zagreb; Medical School University of Zagreb Vladimir Banovic

(002) INCIDENTAL FINDINGS ON ROUTINE MRI SCANS IN VLBW BABIES: SHOULD WE EXPECT THE UNEXPECTED?
M. Matova 1; L.A. Ramenghi 1; A. Parodi 1; M. Severino 2; G. Morana 2; A. Sannia 1; A. Rossi 2
1 Neonatal Intensive Care Unit, Istituto Giannina Gaslini, Genoa, Italy; 2 Pediatric Neuroradiology Unit, Istituto Giannina Gaslini, Genoa, Italy Mariya Malova

(003) FETAL CEREBELLAR HAEMORRHAGE: A CASE-SERIES WITH FOLLOW-UP
S. Steggerda 4; N. Aziz 1; C. Peeters-Scholte 1; F. de Bruine 2; F. Klumper 3; From the Departments of 1; Neuroradiology 2; Gynaecology & Obstetrics 3; and Neonatology 4 of the Leiden University Medical Centre, Leiden, the Netherlands S.J. Steggerda

(004) DEVELOPMENT OF THE FETAL VERMIS: NEW BIOMETRIC REFERENCE DATA AND COMPARISON OF THREE DIAGNOSTIC MODALITIES: 3D, 2D ULTRASOUND AND MAGNETIC RESONANCE IMAGING
E. Katorza 1; E. Bertucci 3; S. Perlman1; S. Taschini 3; S. Kaley 4; R. Ber 1; C. Hoffmann 2; Y. Gilboa 1; V. Mazza 3; R. Achiron 1
1 Department of Obstetrics and Gynecology; 2 Department of Diagnostic Imaging, the Chaim Sheba Medical Center, Tel Hashomer, and Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel; 3 Department of Obstetrics and Gynecology, Prenatal Medicine Unit; 4 Biostatistic Unit, Modena and Reggio Emilia University Eldad Katorza

(005) FETAL BRAIN MRI: NOVEL CLASSIFICATION AND CONTRIBUTION TO SONOGRAPHY
E. Katorza 1; I. Gat 1; C. Hoffmann 2; D. Shashar 1; D. Bar-Yosef 1; E. Konen 2; R. Achiron 1
1 Antenatal Diagnostic Unit, Department of Obstetrics and Gynecology; 2 Department of Diagnostic Imaging; 3 The Chaim Sheba Medical Center, Tel Hashomer, and Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel.

(006) PRENATAL DIAGNOSIS OF FETAL VENTRICULOMEGALY: AGREEMENT BETWEEN FETAL BRAIN ULTRASONOGRAPHY AND MR IMAGING
E. Katorza 1; S. Perlman 1; D. Shashar 1; C. Hoffmann 2; D. Bar-Yosef 1; R. Achiron 1
1 Antenatal Diagnostic Unit, Department of Obstetrics and Gynecology; 2 Department of Diagnostic Imaging; 3 Pediatric Neurology Unit, The Chaim Sheba Medical Center, Tel Hashomer, and Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel.

(013) FETAL MRI FOR OPEN FETAL MYELOMENINGOCELE REPAIR AT THE ZURICH CENTER FOR FETAL DIAGNOSIS AND THERAPY
U. Moehrlen (1,2); I. Blume (1,5); C. Nasiadko (1,5); N. Ochsenbein (1,3); L. Mazzone (1,2); C.J. Kellenberger (1,5); R. Zimmermann (1,3); M. Meuli (1,2); I. Scheer (1,5)
1 The Zurich Center for Fetal Diagnosis and Therapy, Switzerland; 2 Department of Pediatric Surgery, University Children’s Hospital Zurich, Switzerland; 3 Department of Obstetrics, University Hospital Zurich, Switzerland; 4 Department of Anaesthesiology, University Hospital Zurich, Switzerland; 5 Department of Radiology, University Children’s Hospital Zurich, Switzerland Ueli Moehrlen

(015) MONOCHORIONIC TWIN GESTATIONS COMPLICATED BY SPONTANEOUS COTWIN DEMISE OR TWIN TWIN TRANSFUSION SYNDROME: WHAT DOES FETAL MRI ADD?
S. Goergen (1,2); A. Robinson 3; M. Batt 1; J. Clark 1; A. Edwards 3,4; M. Ted 3
1 Monash Imaging, Monash Health, Clayton, Victoria, Australia; 2 Department of Surgery, Southern Clinical School, Clayton, Victoria, Australia; 3 Fetal Diagnostic Unit, Monash Health, Clayton, Victoria, Australia; 4 Monash University, Department of Obstetrics and Gynecology, Clayton, Victoria, Australia Stacy Goergen
SESSION 3: VIRTUAL AUTOPSY
Chairpersons: Yves Ville (Paris, France)

09.15 - 09.35 HIGH RESOLUTION DTE OF NORMAL BRAIN DEVELOPMENT IN VITRO
Ellen Grant (Boston, USA)

09.35 - 09.55 FETAL AUTOPSY CT IN THE FIRST TRIMESTER
Claudio Lombardi (Milan, Italy)

09.55 - 10.15 ETAL MRI
Fabio Triulzi (Milano, Italy)

SESSION 4: THE COMPLEXITY OF CORtical DEVELOPMENT
Chairperson: Eugenio Mercuri (Roma, Italy)

10.15 - 10.45 ULTRASOUND DIAGNOSIS OF FETAL CORTICAL MALFORMATION
Gustavo Malinger (Tel-Aviv, Israel)

10.45 - 11.10 BREAK

11.10 - 11.40 MRI DIAGNOSIS OF FETAL CORTICAL MALFORMATION
Andrea Righini (Milan, Italy)

11.40 - 12.10 CLINICAL OUTCOME OF CORTICAL MALFORMATION
Renzo Guerrini (Florence, Italy)

12.10 - 12.30 Discussion

12.30 - 13.30 BREAK

SESSION 5: HEART AND BRAIN
Chairpersons: Luca Ramenghi (Genoa, Italy) - Dario Paladini (Genoa, Italy)

13.30 - 14.00 FETAL ECHOCARDIOGRAPHY TODAY
Pro: Giulia Tuo (Genoa, Italy)
Con: Rabih Chaoui (Berlin, Germany)

14.00 - 14.30 FETAL CARDIAC MRI: FRIEND OR FOE
Francesca Raimondi (Paris, France)

14.30 - 15.00 POSTNATAL CARDIAC MRI
Francesca Raimondi (Paris, France)

15.00 - 15.20 Discussion

15.20 - 15.45 BREAK

15.45 - 16.15 BRAIN MRI IN CARDIAC MALFORMATIONS
Ellen Grant (Boston, USA)

16.15 - 16.45 CHARGE SYNDROME
Pascale Sonigo (Paris, France) - Laurent Salomon (Paris, France)

16.45 - 17.15 THE MOST COMMON VASCULAR ACQUIRED LESIONS IN SUCH NEONATES
Paul Govaert (Rotterdam, Netherlands)

17.15 - 17.45 Discussion
17.45 - 19.30  ORAL COMMUNICATIONS

(028) GRAND ROUND CASE: INTERSTITIAL PREGNANCY. DULAIMY; K. CATANZANO; T. RADIOLOGY DEPARTMENT, BAYSTATE MEDICAL CENTER, SPRINGFIELD, MASSACHUSETTS, USA
K. Dulaimy
Baystate Medical Center, Springfield, USA

(EXTRA 1) PRENATAL DIAGNOSIS OF TUBEROUS SCLEROSIS. DO WE NEED BRAIN MR?
R. Amster
Lis Maternity Hospital, Tel Aviv, Israel

(016) ANOMALIES OF THE FETAL AORTIC ARCH; CORRELATION BETWEEN IN UTERO ULTRASOUND EXAMINATION AND POSTNATAL MRI/CT
R. Achiron 1; Y. Salem 2
1 Ultrasound unit Department of OB/GYN; 2 Non Invasive Pediatric Cardiology Sheba Medical Center, Tel Hashomer, and Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel

(018) COMPARISON BETWEEN THE NON-INVASIVE APPROACH USING POST-MORTEM MRI AND CONVENTIONAL AUTOPSY IN FOETAL RENAL ANOMALIES ASSESSMENT – A CASE SERIES?
A. Staicu 1; G. Caracostea (1,4); Stanila Popa 2; A. Cioca (3,4); L. Chiriac (5,6); F. Stamatian (1,4); M. Vasilescu (5,6)
1 Gynecology Clinic 1 “Mother and Child” Department, University of Medicine and Pharmacy “Iuliu Hatieganu” Cluj-Napoca, Romania; 2 Department of Pathology, University of Medicine and Pharmacy “Iuliu Hatieganu”, Cluj-Napoca, Romania; 3 Department of Pathology, Imagen Research Centre, Cluj-Napoca, Romania; 4 National Magnetic Resonance Centre, “Babes-Bolyai” University, M. Kogalniceanu 1, Cluj-Napoca, Romania; 5 Faculty of Physics, “Babes Bolyai” University, M. Kogalniceanu 1, Cluj-Napoca, Romania; 6 National Magnetic Resonance Centre, “Babes-Bolyai” University, M. Kogalniceanu 1, Cluj-Napoca, Romania

(019) THREE-DIMENSIONAL TRANSVAGINAL SONOGRAPHIC ASSESSMENT OF THE HUMAN EMBRYONIC BRAIN
T. Kovacs; D. Boitor-Borza; F. Stamatian
1st Clinic of Obstetrics and Gynecology, University of Medicine and Pharmacy, Cluj-Napoca, Romania

(020) MORPHOGENESIS OF THE BRAIN IN THE EMBRYONIC PERIOD: ANATOMICAL STUDY AND IN VITRO ASSESSMENT WITH 7 T MICRO-MRI
D. Boitor-Borza 1; C. Crivii 2; F. Turcu 3; S. Farcausanu 4; F. Stamatian 5
1 1st Clinic of Obstetrics and Gynecology, University of Medicine and Pharmacy, Cluj-Napoca, Romania; 2 Department of Anatomy and Embryology, University of Medicine and Pharmacy, Cluj-Napoca, Romania; 3 National Magnetic Resonance Center, “Babes-Bolyai” University, Cluj-Napoca, Romania; 4 Department of Pathology, Imagen Research Centre, Cluj-Napoca, Romania; 5 1st Clinic of Obstetrics and Gynecology, University of Medicine and Pharmacy, Cluj-Napoca, Romania

(021) ULTRASOUND AND MRI IN FETAL SPINAL ANOMALIES OTHER THAN DYSRAPHISM AT 20-21 WEEKS OF GESTATION: A CASES SERIES STUDY
E. Filippi 1 E. Trincia 2; M. Bencini 2; S. Romeo 3; G. Bracalente 1 S
1 Prenatal Diagnosis Unit, Ca’ Foncello Hospital, Treviso, Italy; 2 Department of Neuroradiology, Ca’ Foncello Hospital, Treviso, Italy; 3 Department of Pathology, Ca’ Foncello Hospital, Treviso, Italy

(023) FETAL SPINAL DYSRAPHISM: THE CONUS MEDULLARIS AND THE SPECTRUM OF NEURAL TUBE DEFECTS
D. Pugash 1, P Thiessen 2, B. Irwin 3, D. Cochrane 4
1 University of British Columbia, Department of Radiology; 2 University of British Columbia, Department of Pediatrics; 3 Children’s and Women’s Health Centre of British Columbia; 4 University of British Columbia, Department of Neurosurgery Denise Pugash

(025) EXAMINATION OF SUBPLATE AND INTERMEDIATE FETAL CEREBRAL LAYERS AT 25 TO 29 WEEKS’ GESTATION BY TRANSVAGINAL NEUROSONOGRAPHY IN SEVERELY RESTRICTED GROWTH FETUSES
T. Loureiro ; S. Diniz ; T. Castro
Department of Obstetrics and Gynecology, S. João Hospital, Medical School, University of Porto, Porto, Portugal Teresa Loureiro
08.45 - 09.30  KEY NOTE LECTURE 3
FETAL ANGIOMAS
Laurent Guibaud (Lyon, France)

SESSION 6: VEIN OF GALEN MALFORMATION
Chairpersons: Laurent Guibaud (Lyon, France) - Andrea Righini (Milan, Italy)
09.30 - 10.00  FETAL ULTRASOUND FEATURES
Benjamin Deloison (Paris, France)
10.00 - 10.30  FETAL AND NEONATAL MRI
Andrea Rossi (Genoa, Italy)
10.30 - 11.00  THE RATIONALE FOR TREATMENT
Carlo Gandolfo (Genoa, Italy)
11.00 - 11.20  Discussion
11.20 - 11.40  BREAK

SESSION 7: UPDATE ON SPINE ANOMALIES
Chairperson: Luca Ramenghi (Genoa, Italy)
11.40 - 12.10  US AND DYSRAPHYSM
Gianluigi Pilu (Bologna, Italy)
12.10 - 12.40  THE COMPLEXITY OF MRI DIAGNOSIS
Andrea Rossi (Genoa, Italy)
12.40 - 13.00  Discussion
13.00 - 14.00  BREAK

SESSION 8: FETAL INFECTIONS
Chairpersons: Yves Ville (Paris, France) - Denise Pugash (Vancouver, British Columbia)
14.00 - 14.30  US DIAGNOSIS
Yves Ville (Paris, France)
14.30 - 15.00  CMV INFECTION: MRI DIAGNOSIS
Pascale Sonigo (Paris, France)
15.00 - 15.30  Discussion
15.30 - 16.00  BREAK

SESSION 9: ACQUIRED BRAIN LESIONS, COMMON IN VERY PREMATURE BABIES AND POSSIBLE DURING FETAL LIFE
Chairpersons: Yves Ville (Paris, France) - Andrea Righini (Milan, Italy)
16.00 - 16.30  US TO DIAGNOSE FETAL INTRAVENTRICULAR HAEMORRHAGE (IVH) AND VENOUS THROMBOSIS
Gustavo Malinger (Tel Aviv, Israel)
16.30 - 17.00  FETAL CEREBELLAR HAEMORRHAGE AND IVH DIAGNOSED WITH MRI
Maria Savina Severino (Genoa, Italy)
17.00 - 17.30  THE FETAL HYDROCEPHALUS: THE ROLE OF MRI
Lucia Manganaro (Rome, Italy)
17.30 - 18.00  THE ROLE OF US AND MRI IN DIAGNOSIS LOW GRADE HAEMORRHAGE OF PREMATURE BABIES
Luca Ramenghi (Genoa, Italy)
18.00 - 18.30  Discussion
18.30 - 19.00  CLOSING REMARKS