Neurosonology Conference 2007
Budapest, Hungary, May 26-29, 2007

12th Meeting of the
European Society of Neurosonology and Cerebral Hemodynamics

13th Meeting of the
Neurosonology Research Group of the World Federation of Neurology

8th Annual Meeting of the
Hungarian Society of Neurosonology

Abstracts

Guest Editors
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L. Olah, Debrecen
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Neurosonology Conference 2007

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Saturday 26th May 2007

Tutorials and Lectures
Helia Conference Room

12:50 Welcome speech
L. Csiba

13:00 Basics and safety of ultrasound. Neurovascular anatomical basis
M. Kaps

13:40 Examination of the carotid and vertebral arteries. Quantification of stenosis. Plaque- and stent imaging
V. Demarin

14:20 Diagnosis and pitfalls of cervical artery dissections
G.M. v Reutern

15:00 Coffee break

15:30 TCD and TCCD of intracranial arteries. Quantification of stenosis
D. Droste

16:10 TCCD of veins. TCCD of parenchyma
U. Walter, E. Bartels

16:50 Ultrasound – Cerebral thrombolysis
A.V. Alexandrov

17:10 Impact of ultrasound on the diagnosis of brain death
Z. Garami

17:30 - Practical Exam
Room Orion A & Orion B
Technicians: Csapo, Magyar, Mezei, Molnar, Nemeth, Olah, Szapari

17:30 SonoVue Investigator Meeting
Room Venus

Sunday 27th May 2007

Tutorials and Lectures
Helia Conference Room

08:00 TCD - Cerebral autoregulation
A. Hetzel

08:40 Functional transcranial Doppler
B. Rosengarten

09:20 Carotid arterial wall disease (IMT, FMD, arteritis)
M. Ritter

10:00 Contrast agent and perfusion imaging
E. Bartels

10:40 Microembolus detection and PFO diagnostics
D. Russell

11:20 - Practical Exam
Room Orion A & Orion B
Technicians: Csapo, Magyar, Mezei, Molnar, Nemeth, Olah, Szapari

12:20 - Written Exam

12:20 - Executive Committee Meeting of ESNCH
Room Venus

13:30 OPENING CEREMONY
Helia Conference Room

Key Lectures

14:30 Basic research in neurosonology and its clinical implementation
S. Meairs

14:55 TCD assessing chronic ischemia (vasomotor reactivity): clinical significance
N. Bornstein
Session I
Microembolus detection in clinical practice. Part I.
Chairpersons: D. Russell, M. Siebler
Helia Conference Room

15:20  Embolus detection: now and in the future
       D. Russell
15:35  Ambulatory transcranial Doppler cerebral embolic signal detection in symptomatic and asymptomatic carotid stenosis
       W.H. Mess
15:50  The use of embolic signal detection in multicenter trials to evaluate antiplatelet and/or anticoagulant efficacy. Clinical trials
       M. Siebler
16:05  Microembolism and neuropsychological deficits in patients undergoing cardiopulmonary bypass surgery
       T. Gerriets
16:20  Discussion

Session II
Microembolus detection in clinical practice. Part II.
Chairpersons: M. Sturzenegger, G. Meneghetti
Helia Conference Room

16:30  Is PFO relevant for migraine and stroke? 
       YES G.P. Anzola, NO M.Del Sette
16:50  Microembolisation and neuroradiological ischemic changes in symptomatic patients with high grade carotid stenosis
       T. Zuromskis
17:00  Introduction of an emboli detection system based on analysis of the TCD audio-signal
       R.W.M. Keunen
17:10  Postural dependency of right to left shunt in normal subjects
       L. Caputi
17:20  Discussion
17:30  Satellite symposium (BRACCO)
       Helia Conference Room

Session III
Functional and morphological changes of extracranial arteries
Chairpersons: S. J. Ryu, L. Csiba
Helia Conference Room

08:00  Pathophysiology and diagnosis of cervical arterial dissections
       B. Ringelstein
08:15  Interobserver agreement and sensitivity of diagnostic methods for cervical artery dissections
       J.M. de Bray
08:30  Impaired vasomotion in multiple spontaneous cervical artery dissections
       C. Baracchini
08:40  Mobile plaque: its clinical meaning and pathological findings
       K. Nagatsuka
08:50  Ulcerative plaques in the aortic arch detected by transesophageal echocardiography are independently related to recent multiple brain infarcts
       S. Yoshimura
09:00  Internal jugular vein valve insufficiency in idiopathic intracranial hypertension
       M. Nedelmann
09:10  Assessment of influencing factors in the development of target-organ damages in adolescence
       D. Pall
09:20  Discussion

Session IV
New applications for ultrasound
Chairpersons: U. Walter, D. Skoloudik
Helia Conference Room

09:30  CLOTBUST-PRO: prospective multi-national CLOTBUST-PRO collaboration on reperfusion therapies for stroke
       A. V. Alexandrov
09:45  Transcranial brain sonography for preclinical and differential diagnosis of Parkinson's disease
       U. Walter

Monday 28th May 2007

Session III
Functional and morphological changes of extracranial arteries
Chairpersons: S. J. Ryu, L. Csiba
Helia Conference Room

08:00  Pathophysiology and diagnosis of cervical arterial dissections
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       M. Nedelmann
09:10  Assessment of influencing factors in the development of target-organ damages in adolescence
       D. Pall
09:20  Discussion
Session VI

Functional TCD. Neurovascular coupling. Dynamic cerebral autoregulation
Chairpersons: M. Kaps, A. Hetzel

Helia Conference Room

14:00 Update on cerebral autoregulation
R. Aaslid

14:15 Dynamic cerebral autoregulation during brain activation paradigms
R.B. Panerai

14:30 Functional transcranial Doppler assessment of cerebral blood flow velocity changes during attention tasks in healthy subjects. Relationship with reaction times and right answers
M. Matteis

14:40 Acetazolamide cerebrovascular reactivity and dynamic cerebral autoregulation
E.D. Gommer

14:50 Emotional processing in patients with multiple sclerosis: a study using functional transcranial Doppler ultrasonography
E. Troisi

15:00 Cerebral vasomotor reactivity in normal pregnancy and preeclampsia
M. Rohani

15:10 Discussion

15:20 - Poster Session

16:50 Room Mercure & Panorama
Chairpersons: D. Skoloudik, V. Oliveira, G. Panczel, T. Els

Session VII

Ultrasound Contrast Agents and Perfusion Imaging
Chairpersons: E. Bartels, M. Del Sette

Helia Conference Room

E. Bartels

17:05 Transcranial brain tissue perfusion images by power modulation imaging in comparison with second harmonic imaging
T. Shiogai

17:20 Contrast-enhanced transcranial color-coded duplex sonography (CTCCD) and contrast harmonic imaging (CHI) techniques: a proposal for a new diagnostic approach in acute ischaemic stroke
E. Sanzaro
Session VIII
New horizons in neurosonology
Chairpersons: T. Shiogai, J. Molto
Helia Conference Room

08:00 Optical quantitative method for evaluation of ultrasonothrombolysis
H. Furuhata
08:15 Microbubble detection and dynamics. New approaches.
G. Schmitz
08:30 Microcirculatory dysfunction in the brain precedes changes in evoked potentials in endotoxin-induced sepsis syndrome in rats
B. Rosengarten
08:45 Pattern classification of hemodynamic data can be used to noninvasively determine the intracranial pressure
J. Klingelhöfer
09:00 Individual calibration increases the accuracy of non-invasive ICP assessment
B. Schmidt
09:10 Sequential changes of focal cerebral ischemia and reperfusion assessed by contrast enhanced ultrasound in an experimental stroke model
A. Allroggen
09:20 Sonothrombolysis efficacy of low-intensity 1 MHz ultrasound with tPA in a rabbit carotid artery model of thromboembolic occlusion
A. Voie
09:30 Discussion

Session IX
Acute stroke and ultrasound
Chairpersons: C. Baracchini, H. Furuhata
Helia Conference Room
09:40 Microbubble-enhanced sonothrombolysis in acute ischemic stroke?
C.A. Molina
09:55 Urgent carotid and transcranial ultrasound as a prognostic marker of intravenous thrombolysis
M. Rubiera
10:05 Predictive outcome of neurosonology in the acute stroke: meta-analysis
F. Cioli
10:15 Asymptomatic pulmonary embolism as a marker of embolic activity in patients with stroke and patent foramen ovale
C. Tanislav
10:25 Discussion
10:35 Coffee break

Session X
Diagnostic and therapeutic interventions and neurosonological methods
Chairpersons: M. Silvestrini, K. Niederkorn
Helia Conference Room
11:00 Neurosonological methods in the evaluation of pharmacological interventions. Statins in arterial wall disease
M. Silvestrini
11:15 Changes of cerebral, cardiac hemodynamics and neuropsychological parameters in hypertension
L. Csiba
11:30 Effect of STA-MCA bypass for the chronic ocular ischemic syndrome due to the occlusive internal carotid artery diseases
S. Kawaguchi
11:40 Ultrasound for early prediction of dementia: a transcranial Doppler study
G. P. Anzola
11:50 Cerebral autoregulation and systemic hemodynamics in early Alzheimer disease
J. Claassen
12:00 Compromised cerebral blood flow during hypotensive challenge in Alzheimer disease
A. van Beek
12:10 Reversible posterior leucoencephalopathy and reversible cerebral segmental vasoconstriction related to cyclosporine; are the same entity?
V.F. Zetola
12:20 Discussion
12:30 CLOSING REMARKS

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