Further Section
Cerebrovasc Dis 1996;6:175–194

4th International Symposium on Thrombolytic Therapy in Acute Ischemic Stroke
Copenhagen, May 30-June 1, 1996

Organizers

Scientific Program Committee
Gudrun Boysen Thomas Brott James Grotta Werner

Scientific Advisory Committee
Hache Markku Kaste Etsuro Mori Takenori Yamaguchi Gregory del Zoppo

Sissel Vorstrup
Nils-Gunnar Wahlgren
Local Organizing Committee

Gudrun Boysen Eraa Enevoldsen Bent Indredavik Markku Kaste Per Meden Tom Skyhaj Olsen Karsten Overgaard Do rte Rasmussen Björn Sperling
Friday, May 31, 1996

Official Welcome (8:15-8:30)
I Session (8:30-10:30) Pathophysiology of Ischemia, Reperfusion, Incomplete Infarction, Neuronal Death, Thrombosis and Thrombolysis

Chairpersons: Desire Collen, Wolf-Dieter Heiss

Incomplete Infarction after Thrombolysis
Niels A. Lassen, Copenhagen (Denmark)

Focal Cerebral Ischemia: The Therapeutic Window Extended
Bo K. Siesjo, Lund (Sweden)

PET Data on the Development of the Dynamic Penumbra in Ischemic Stroke
Wolf-Dieter Heiss, Cologne (Germany)

Vascular Cellular Interactions and Alterations in the Microvasculature in Acute Focal Cerebral Ischemia
Gregory del Zoppo, La Jolla, Calif. (USA)

Non-Neuronal Cells, Their Responses to Focal Ischemia
Julio H. Garcia, Detroit, Mich. (USA)

Glutamate Receptor Mediated Protection in Cerebral Ischemia
Nils H. Diener, Copenhagen (Denmark)
2 Workshop (11:00-12:15)
Imaging for Acute Evaluation of Candidates for Thrombolysis
Chairpersons: Michael G. Hennerici, Shirley M. Otis

8 Determination of the Individual Therapeutic Time Window by Early Computed Tomography
Rüdiger von Kummer, Heidelberg (Germany)

9 Angiography versus MRA
Etsuro Mori, Himeji (Japan)

10 MRI Perfusion Weighted Imaging and Thrombolysis
Andreas Schwartz, Mannheim (Germany)

11 The Role of Ultrasonography in Thrombolysis
E.B. Ringelstein, Minister (Germany)

12 SPECT in Thrombolysis
Bjern Sperling, Copenhagen (Denmark)

Panel Discussion Lunch Break (12:15-13:15)

KARGER
E-Mail: karger@karger.ch Fax: +41613061234
3 Workshop (13:15-15:00)
Risk Factors for Development of Edema, Hemorrhage, Bad Neurological Outcome, Bad Functional Outcome, and Death
Chairpersons: Otto Busse, Werner Hacke

13 ECASS Trial
Markku Kaste, Helsinki (Finland)

14 Hemorrhagic Transformations, ECASS Trial
Vincent Larue, Toulouse (France)

15 NINDS rt-PA Trial
Patrick D. Lyden, San Diego, Calif. (USA)

16 MAST Italy
Livia Candels, Milano (Italy)

17 MAST Europe
Marc Hommel, Grenoble (France)

18 Hemorrhagic Transformations, MAST Europe T. Moulin, Besancon (France)

19 ASK Trial
Geoffrey A. Donnan, Melbourne (Australia)

Panel Discussion Coffee Break (15:00-15:20)

4 Workshop (15:20-16:50)
Predictors of Good Outcome
Chairpersons: Michael Gent, Kazuo Minematsu

20 ECASS Trial
Werner Hacke, Heidelberg (Germany)

21 NINDS rt-PA Trial
John Marler, Bethesda, Md. (USA)

22 The Japanese rt-PA Trial
Takenori Yamaguchi, Osaka (Japan)

23 MAST Italy
Joanna Wardlaw, Edinburgh (UK)

24 MAST Europe
Marc Hommel, Grenoble (France)

25 ASK Trial
Stephen Davis, Melbourne (Australia)

Panel Discussion

5 Session (16:50-17:20)
Ethical Aspects of Thrombolysis in Acute Ischemic Stroke
Chairpersons: Louis R. Caplan, Jean-Marc Orgogozo

26 Ethical Considerations on Patient Recruitment and Trial Conduct
Julien Bogousslavsky, Lausanne (Switzerland)

27 Does Clinical Improvement at 90 Days in Survivors Justify an Increased Acute Risk of Hemorrhage and Death?
Anthony J. Furlan, Cleveland, Ohio (USA)
Saturday, June 1, 1996

6 Workshop (8:15-9:45)
On Results of Intraarterial Thrombolytic Therapy
Chairpersons: Gregory J. del Zoppo, Hermann Zeumer

28 Direct Intra-Arterial Thrombolytic Therapy in Acute Ischemic Stroke: Technique and Results
Randall Higashida, San Francisco, Calif. (USA)

29 The Prolyse in Acute Cerebral Thromboembolism Trial (PROACT): Results of 6 mg Dose Tier
Anthony Furlan, Cleveland, Ohio (USA)

30 A Superselective Intraarterial Trial using rt-PA for Embolic Stroke
Jyoji Nakagawara, Sapporo (Japan)

31 The Role of Thrombolysis in Angioplasty for Carotid Lesions
Stanley L. Barnwell, Portland, Oreg. (USA)

32 Local Intraarterial Fibrinolysis: The Appropriate Aid to Treat Embolic Complications during Endovascular Procedures
Hermann Zeumer, Hamburg (Germany)

33 Combined Intravenous and Intra-Arterial Thrombolysis versus Intra-Arterial Thrombolysis Alone: Preliminary Safety and Clot Lysis
Joseph P. Broderick, Cincinnati, Ohio (USA)

Panel Discussion Coffee Break (9:45-10:00)

7 Poster Session (10:00-11:00)
Chairpersons: Bent Indredavik, Etsuro Mori

34 Local Thrombolytic Therapy in 153 Cases of Acute Major Cerebral Artery Occlusion
Koichi Satoh, Tokushima (Japan)

35 Immediate CT Findings after Intraarterial Thrombolytic Therapy for Acute Ischemic Stroke
Byung-Chul Lee, Seoul (Korea)

36 Intra-Arterial Thrombolysis in Acute Basilar Artery Occlusion
Didiev Chavot, Besancon (France)

37 Predictive Value of Early CT Scan Signs for Hemorrhagic Transformation in Intra-Arterial Thrombolysis for Acute Carotid Territory Ischemic Stroke
Kwang-Ho Lee, Seoul (Korea)

38 Transcranial Doppler Monitoring in Intracranial Thrombolysis
Andreas Link, Hannover (Germany)

39 'Lay your Bets': Insights from Thrombolysing Basilar Occlusion when Confronted with Bilateral Vertebral Occlusion
Meng Wong, Singapore (Singapore)
40 Thrombolysis in Patients with Acute Basilar Artery Occlusion: Variables Affecting Recanalization and Late Outcome
Tobias Brandt, Heidelberg (Germany)

41 Local Intraarterial Fibrinolysis in Vertebro-Basilar Thrombosis - Prognostic Criteria
Thomas Fox, Hornburg/Saar (Germany)

42 Hemorrhagic Complications of Intraarterial Fibrinolysis
Gerhard F. Hamann, Hornburg/Saar (Germany)

43 Nonvalvular Atrial Fibrillation in Acute Stroke
Thrombolytic Therapy
Yukihiro Yoneda, Himeji (Japan)

44 Thrombolysis of Anterior Choroidal Artery Strokes: Trend to Early Reinfarct and Specific Monitoring
Paul Trouillas, Lyon (France)

45 Open Trial of Intravenous rt-PA in Acute Carotid Territory Strokes: Correlation of Outcome with Clinical and Therapeutic Data
Paul Trouillas, Lyon (France)

46 VCAM-1 Expression Is Linked to Angiogenesis in Human Brains after Ischemic Stroke
Jerzy Krupinski, Manchester (UK)

47 Temperature in Stroke Is Related to Stroke Severity, Mortality, and Outcome
Jakob Reith, Copenhagen (Denmark)

48 Evaluation of Intravenous Urokinase, Ozagrel Sodium and Low Molecular Dextran Therapy in Acute Ischemic Stroke - Comparison of Infusion Methods of Urokinase Yoshiyuki Konta, Hiroaki (Japan)

49 Tissue Plasminogen Activator Antigen and Plasminogen Activator Inhibitor-1 Antigen in Stroke Patients
Ane Lindgren, Lund (Sweden)

50 Hemorrhagic Transformation of Cerebral Infarcts in a Rat Model
Leonardo Pantoni, Florence (Italy)

51 Specific Volume Reductions of Human Hippocampus after Cardiac Arrest
Masayuki Fujioka, Nara (Japan)

52 Complications of Thrombolytic Therapy in Multiple Cerebral Infarctions
Cristina Mascov-Ionescu, Bucharest (Romania)

53 Factors Affecting Clinical Application of Angiography-Based Thrombolytic Therapy for Acute Ischemic Stroke
Yasushi Okada, Fukuoka (Japan)

54 The Risk for Cortical versus Subcortical Infarction after Thrombolysis
Otto Busse, Minden (Germany)

55 Experimental Model for Treatment of Focal Cerebral Ischemia Associating Thrombolysis and Inhibition of Ischemia-Reperfusion Injury Mediators
Maria Alonso de Lecinana, Madrid (Spain)

56 Infarct Volume of Day One after Ischemic Stroke and Prognosis
Rudiger von Kummer, Heidelberg (Germany)

57 Australian Urokinase Stroke Trial Stephen Davis, Melbourne (Australia)

58 Late Thrombolysis in Acute Basilar Artery Occlusion Didier Milhaud, Montpellier (France)
Workshop (11:00-12:15)
On Neuroprotective Therapy
Chairpersons: James Grotta, Kjell Asplund

DCLHb
James Grotta, Houston, Tex. (USA)

Labeluzole
H.C. Dicnrc. Essen (Germany)

Ancrod
David Sherman, San Antonio, Tex. (USA)

Eliprodil
Marc Fisher, Worcester, Mass. (USA)

Anti-ICAM 1
David Sherman, San Antonio, Tex. (USA)

Cerestat
Michael Pessin, Boston, Mass. (USA)

Tirilazad Mesylate
Jean-Marc Orgogozo, Bordeaux (France)

CLASS
Nils Gunnar Wahlgren, Stockholm (Sweden)

Panel Discussion Lunch Break (12:15-13:15)

Session (13:15-14:30)
Free Communications
Chairpersons: Nils Gunnar Wahlgren, Michael S. Pessin

Thrombolysis with Recombinant Desmodus Saliva
Plasminogen Activator (rDSPAa1) in a Rat Embolic Stroke
Model
Per Meden, Copenhagen (Denmark)

Tissue Recovery after Thromboembolic Stroke and
Treatment with rt-PA Assessed by Continuous Perfusion
and Diffusion IvTRI
Elmar Busch, Cologne (Germany)

Loss of c-Tpi and a63i Integrin Immunoreactivity on
Cerebral Microvessels and Astrocytes following Focal
Cerebral Ischemia Reperfusion
Gregory del Zoppo, La Jolla, Calif. (USA)

Prognostic Value of Hemorrhagic Transformations in
Acute Ischemic Stroke
Elisabetta Arizza, Milano (Italy)

Multicenter Trial of a Novel Modified t-PA, E6010 by i.v.
Bolus Injection in Patients with Acute Carotid Artery
Territory Stroke
Etsuro Mori, Himeji (Japan)

Unstructured Hypodense Images on 24 Hours CT Scan in
rt-PA Thrombolysis of Acute Carotid Territory Strokes:
Predictors of Favourable Outcome
Paul Trouillas, Lyon (France)

Factors Delaying Hospital Admission in Acute Stroke
Tom S. Olsen, Copenhagen (Denmark)

Scientific Program
Experimental Multimodality Therapy and Future Trials

Chairpersons: Mark L. Dyken, Gudrun Boysen

74 Experimental Combined Thrombolysis and Neuroprotection
Karsten Overgaard, Copenhagen (Denmark)

75 Eliprodil Increases the Benefit of Thrombolysis in an Embolic Stroke Model in Rats
Delphine Lekieffre, Bagneux (France)

76 Reperfusion Injury: Treatment after Thrombolysis Justin Zivin, San Diego, Calif. (USA)

77 Future Clinical Trials of Combined Therapy Marc Fisher, Worcester, Mass. (USA)

78 The EMFATAS Project: A Four-Arm Safety and Efficacy European Trial Cesare Fieschi, Rome (Italy)

Panel Discussion Coffee Break (15:40-16:00)
12 Panel Discussion (16:15-17:20)
Future Policy of Thrombolytic Therapy in Acute Stroke
Chairpersons: Julien Bogousslavsky, Sissel Vorstrup Panel Participants: Louis Caplan, Gregory J. del Zoppo, Thomas Brott, Livia Candelise, Marc Hommel, Geoffrey A. Donnan, Werner Hacke, Takenori Yamaguchi

1. Should thrombolysis for acute ischemic stroke be implemented on the basis of current data?
2. Should angiography or perfusion imaging (MRA, TCD, SPECT) be done before thrombolytic therapy?
3. Timing of treatment?
4. How severe neurological deficit must patients have to qualify for thrombolytic therapy?
   Should very severe deficit exclude patients?
5. Should early infarct signs on CT exclude patients?
6. Should other agents, e.g. heparin or aspirin, be given or avoided during thrombolytic therapy?

11 Session (16:00-16:15)
Meta-Analysis of RCTs of Thrombolysis in Acute Stroke
Chairperson: Joanna M. Wardlaw

79 Meta-Analysis of RCTs of Intravenous Thrombolysis
Jean-Pierre Boissel, Lyon (France)

Main Sponsor
Boehringer Ingelheim
Sponsors

Under the auspices of the Scandinavian Society for Cerebrovascular Diseases and of the European Stroke Council the 4th International Symposium on Thrombolytic Therapy in Acute Ischemic Stroke is sponsored by

Novo Nordisk Fonden
Max og Anna Friedmanns Legat
Grosserer Harald Jensen og Hustrus Fond
Upjohn