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Introduction

This supplement devoted to new vascular concepts in the treatment of acute stroke is based on a satellite symposium held at the 6th European Stroke Conference in Amsterdam, The Netherlands, and provided to the readers of *Cerebrovascular Diseases* thanks to an educational grant from Knoll/BASF.

As reflected in the following articles, acute stroke therapy is currently changing tremendously after the encouraging results of pilot studies on the benefit and efficacy of hyperacute and early treatment of stroke in general and specific therapeutic interventions like thrombolysis and neuroprotection in particular. So far, none of these specific treatments has repeatedly been shown to be effective and, even if so, they may be available for only a minority of patients, which is yet due to potential hazards associated with treatment and, probably more importantly, a still lacking infrastructure to treat patients within 3 h after onset of symptoms in most places around the world. However, there is little doubt that the long-standing discrepancy between positive results from experimental stroke model studies and negative results from clinical trials will

further be balanced by refined instruments used in the design of acute stroke trials with subsequently positive results. Among the leading questions for this purpose are: (i) appropriate evaluation of prognosis, (ii) identification of the individual stroke mechanisms, (iii) determination of the potential interaction of different treatment principles and (iv) selection of brain imaging substitutes to stroke scores.

During the 6th European Stroke Conference many studies were presented which despite sophisticated designs as well as meticulous and devoted work of clinical and coordination staff members failed to demonstrate efficacy of various treatment strategies versus placebo in the acute stroke condition. This is among the reasons why in this symposium experts were asked to provide and discuss their thoughts and ideas on how studies could do better in the future and give new drugs a better chance to demonstrate effectiveness, e.g. fibrinogen-depleting agents or combinations of drugs. We are grateful to the authors for their contributions to this challenging issue.