New Insights in Intracerebral Hemorrhage
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Preface

A new era for acute stroke care has come. Promptly visiting to a stroke center can be a key to success in dramatic recovery via acute reperfusion therapy. The therapeutic time window has been expanding with the progression of penumbral imaging, and the opportunity for stroke therapy has shifted to the prehospital setting in trials. Indeed, a new era for stroke medicine has come. However, this is the situation for ischemic stroke therapy. What is the status of intracerebral hemorrhage therapy?

Although the age-standardized mortality rate for hemorrhagic stroke (intracerebral hemorrhage and subarachnoid hemorrhage combined) has decreased worldwide in the past two decades, the incidence, number of deaths, and number of disability-adjusted life-years lost continue to increase [1]. Despite having half the incidence of ischemic stroke globally, hemorrhagic stroke causes more deaths and disability-adjusted life-years lost than ischemic stroke. In particular, intracerebral hemorrhage is relatively common in nonwhite ethnic populations. The development of a therapeutic strategy for intracerebral hemorrhage is as eagerly awaited as that for ischemic stroke. However, no established strategy for acute ICH analogous to reperfusion therapy for ischemic stroke has been established.

We encountered several milestone studies on intracerebral hemorrhage in the past decade. The Surgical Treatment for Ischemic Heart Failure (STICH) [2], involving 83 centers from 27 countries, was the largest trial on early hematoma evacuation surgery ever. That trial did not show overall benefit from surgery compared to initial medical therapy. In the Factor Seven for Acute Hemorrhagic Stroke Treatment (FAST) trial [3], emergent hemostatic therapy with recombinant activated factor VII reduced early hematoma growth. Although hemostatic therapy improved survival and functional outcomes in the initial trial, these clinical effects were not reproducible in a further trial. The hemostatic strategy is currently limited to cases of hemorrhage associated with coagulopathy or antithrombotic use; however, this strategy may be essential for the prevention of the ultra-early growth of intracerebral hemorrhage in general. The Second Intensive Blood Pressure Reduction in Acute Cerebral Haemorrhage Trial (INTERACT2) [4] significantly proved the safety and almost significantly showed the efficacy of early intensive blood pressure reduction for patients with hyperacute intracerebral hemorrhage. Several guidelines revised their recommendations for inten-
sive antihypertensive therapy based on that trial. Thus, the initial hours after onset seem to be a golden time window for intracerebral hemorrhage as is the case for ischemic stroke.

Surprisingly, this is the first occasion in the 40-year history of ‘Frontiers of Neurology and Neuroscience’ in which intracerebral hemorrhage has been accepted as a main theme. It is time to thoroughly understand this devastating disease. This book covers all the recent topics related to the diagnosis and management of intracerebral hemorrhage and is written by top opinion experts. We hope that this book assists in your understanding of the current and future aspects of the optimal management of patients with intracerebral hemorrhage.

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References