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ASIAN NEUROLOGY AND STROKE

In his 2010 inauguration speech, Professor Vladimir Hachinski, President of the World Federation of Neurology (WFN), conveyed a message: “Asia has more than 60% of the global population, yet in some areas, the education of neurology to young neurologists does not keep up with the patients’ needs of neurologic care.” He organized the Asia Initiative as a part of WFN to bring attention to this region. As the Chair of this Initiative, I have met many Asian neurologists and have begun to realize that there is a unique situation that requires attention from the rest of the world.

Asia is rapidly exploding in population and economy, and facing unique problems not experienced by other regions. Among these, the accelerated aging of the population brings neurologic disorders such as stroke and Alzheimer disease to the forefront.

The figure shows the projected increase of the population over 65 years among nations. While Western countries have a linear increase of the aged over years, Asian countries (Japan, Korea, and China) have S-shaped curves indicating a steep surge of the aged population during 2000–2020 (Japan) and 2020–2030 (Korea and China). India will probably join this group by the end of this century.

Japan is the first to be exposed to this surge, and the number of stroke patients is steeply increasing. In 2000, it was around 1.7 million, but in 2013, it was 2.8 million. Stroke was the number 2 killer in the 1970s, but it is currently fourth, following cancer, heart disease, and pneumonia. Although the number of stroke attacks is 6 times as frequent as heart attack, it has largely become a nonfatal disease with disabilities; two-thirds of the patients are unable to return to premorbid activities. The burden is shared by society, the family, and the patients themselves.

From the global view, stroke is the second leading cause of death after ischemic heart disease, with an estimated 5.5 million people dying from stroke every year worldwide. Two-thirds of these deaths occur in countries with few resources.¹ Approximately 80% of patients survive the acute phase of stroke but are left with varying degrees of chronic disability, thus

making stroke a leading cause of disability in adults in these nations.² Japan had been among those with limited resources, but grew to a high income state in a short period of time, and other Asian nations are expected to follow a similar course.

The drop in stroke mortality in Japan is due to change in diet, Western lifestyle, and the efficient social health care system. However, the main factor is the control of hypertension by medication, which decreased the number of fatal massive hemorrhages.³ The impact of thrombolytic therapy is not very effective for decreasing disability, but probably prevents stroke deaths.

Stroke in the Asian population is different from that in Western countries.⁴ Hemorrhages are still prevalent and intracranial branch atheromatous diseases are common. Extracranial large vessel diseases are increasing in number, and ultrasound carotid screening is becoming more important. Smoking is still a problem in the region. Intracranial hypertensive hemorrhage is associated with protein malnutrition.

The expense related to caring for stroke survivors is now exceeding \$25 billion USD per year in Japan. Now the Japanese economy is revolving around those aged patients and their care. This is not limited to Japan; Korea and China will follow this course during the next 2 decades.

Stroke centers with staff dedicated to thrombolytic therapy are urgently needed, and we are investing effort into increasing awareness of stroke among Asian people. Educating health professionals in neurology is the Asian Initiative’s first priority.

The roots of neurology lie in Europe and this specialty matured in the United States. Asia has its own priorities in coping with neurologic diseases. We need a forum to discuss the problems in this region, and to provide unique educational opportunities for neurologists, general practitioners, allied health professionals, and patients. With these aims in mind, the WFN has decided to make the best use of the existing regional neurologic organizations to fulfill its mission.

The Asian Oceanian Association of Neurology (AOAN) was first established by the Japanese Society of Neurology through the recommendation of WFN

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Figure Projected increase (percent) of population over 65 years

Adapted from Current Status and Predictions for an Aging Society with Fewer Children. Japanese Ministry of Education, Sports, Culture, Science and Technology. Available at: <http://www.mext.go.jp/english/whitepaper/1302597.htm>. Reprinted with permission.

in 1961, and its congresses have been held every 4 years. Meetings were well-attended by delegates from the region, but AOAN had a financial shortage. The WFN has provided an educational grant for the AOAN through the Asia Initiative, which covers expenses related to the organizing offices and to provide educational opportunities such as local seminars. In 2011, the President of the AOAN, Dr. C.P. Tsai from Taiwan, talked to the delegates, and now the congress is held every 2 years.

In 2012, the meeting in Melbourne was hosted by the Australian and New Zealand Society. It was a great success and attracted not only a large number of participants but also many sponsors due to the increasing value of the region as an emerging market. Another reason for success was synergy. Symposia and workshops were held in collaboration with international organizations such as the Movement Disorders Society and the International Federation of Clinical Neurophysiology. These joint activities provided the financial support for the meeting and increased attendance. The event also helped the supporting organizations increase

their visibility to the world. This meeting is now a model for future meetings in Asia.

The last meeting was held in March 2014 in Macao and was hosted by the Hong Kong Society. The program focused on stroke and its prevention. It is hoped that these meetings will soon be equivalent to European Federation of Neurological Societies, European Neurological Society, or American Academy of Neurology meetings.

Because of their increasing number, stroke survivors are now being called “people with stroke” rather than “stroke patients” in Japan. Despite social recognition of the disabled, the infrastructure for people with stroke is still inadequate. To meet these needs, universal design has become the key goal for housing, automobiles, and other industries. The Japanese Society of Neurology has pledged to promote neurorehabilitation. These social changes are expected to be seen in other Asian countries in the near future.

The population explosion in regions with previously limited resources is now seeing a surge in the elderly population. Measures to lessen the burden of stroke and other neurologic illnesses are urgently needed in Asian countries, and should be discussed and tackled globally.

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