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CHANGING FACE OF THE KOREAN NEUROLOGICAL ASSOCIATION

Since its establishment in 1982, the Korean Neurological Association (KNA) has demonstrated stable growth over the last 3 decades, and a lot of effort has been made to take the KNA to a global level. During this period of transition, the KNA has held a number of regular domestic conferences and several international conferences, conferred academic support to members, and issued domestic and international journals. The KNA has grown to about 1,800 members, and has many subspecialties and related societies. The quantitative and qualitative growth of the KNA has led to the remarkable development of the neurology and neuroscience fields in Korea. This article outlines the clinical, academic, and scientific development of the KNA, its present activities, and current concerns in Korea, having overcome the devastation of occupation and war to rapidly become a modern and developed state.

Foundation and development of the Korean Neurological Association. The KNA had a late start as an independent branch of the Korean Medical Association. Neurology functioned as part of the Departments of Internal Medicine and Psychiatry until the early 1970s, when it separated from those departments and commenced independent clinical activities. Scholars, who had returned from several years of specialized neurologic training abroad, devoted themselves to the development of neurology and began to attract attention from health providers and policy makers. However, a rigid medical board system led by the government did not easily permit the existence of an independent neurologic association. The KNA became a separate entity as an official independent academic association in 1982 through many struggles with other related fields. In 1983, the KNA introduced the Korean Board of Neurology examination and began issuing the *Journal of Korean Neurological Association* (JKNA; <http://www.neuro.or.kr/journal/>) twice a year. The number of submissions has steadily increased so that JKNA has been issued 6 times a year since 1996. Even

though the articles in JKNA are of high quality and have English abstracts, there has been limited accessibility by international readers. Therefore, in 2005, the KNA began to issue a separate English journal, the *Journal of Clinical Neurology* (JCN; <http://thejcn.com/>). The JCN is published quarterly and is indexed in the Science Citation Index Expanded (impact factor in 2012: 1.691). In 1995, the KNA successfully held its first international conference, the 9th Asian and Oceania Congress of Neurology (AOCN). Inspired by this success, KNA members have become more actively involved in international academic societies. Over the last decade, the KNA has made numerous achievements in the development of the neurology and neuroscience fields, and has contributed to public health as well. The KNA has had a Web site (www.neuro.or.kr) since 1998, which contains educational materials not only for its members but also for the public.

Present activities of the KNA in Korea. The current roles of the KNA comprise human resource, academic, and clinical programs that encompass the entire spectrum of neurologic disorders, with specialized members and care teams in primary hospitals, educational hospitals, and long-stay hospitals. The number of total residents and board-certified members in neurology in Korea increased sharply in the late 2000s, and the KNA now has about 1,800 members. Since the late 1990s, the KNA has facilitated the establishment of diverse subspecialties, divisions, and related societies, and has actively expanded academic exchanges with other countries. Starting with the Korean Epilepsy Society in 1996, 14 subspecialty societies have been founded. Residency and postgraduate courses in neurology were introduced in the late 1970s, and initial educational programs took place at the local level with substantial variability among hospitals. However, in 1996, the KNA instituted a training committee that established the policy that all trainees should be trained by systematic guidelines and regular educational

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programs and appraised by an in-service training examination every year. The residency in-service training examination is intended not to certify but to measure knowledge of basic neuroscience and clinical neurology, and thereby identify areas of weakness and strength.

Board certification, maintenance of certification, and subspecialty certification. The KNA board examination committee oversees a certification process with comprehensive written and oral examinations with an emphasis on the latter. After completion of neurology training, a variety of postgraduate continuing medical education programs developed by the KNA has helped members maintain and refine their knowledge. Considering the importance of self-improvement, performance improvement, and ultimately improvement in the quality of patient care, requirements for maintenance of certification are being discussed. At the current time, the KNA does not offer subspecialty certification.

Annual national meetings. A national meeting of the KNA is held twice a year, which highlights the educational programs. At the meeting, residents and faculty members present their original studies, literature reviews, and challenging cases. The KNA confers various awards and grants to the presenters and encourages their academic activities. Indeed, research productivity has increased robustly over the last 10 years. Each subspecialty also holds meetings biannually and provides differentiated educational courses and workshops. However, proliferation of subspecialty meetings has led to too many meetings for trainees, and has become a challenge to coordinate and optimize the contents of the meetings, both for the trainees and for the specialists in the field.

Clinical activities. There have been notable changes in demographics, disease patterns, and public awareness during the past several decades in Korea.^{1,2} A lack of public awareness for neurology and neurologic diseases has been a hindrance to the development of neurology. Therefore, the KNA instituted a publicity committee in 1989 and has made continuous efforts (public lectures, information booklets and videos) to provide information and services to the general public. The KNA also cooperates with Korean Center for Disease Control to develop and release public media announcements to enhance the public's awareness of various neurologic diseases. On the other hand, a growing number of neurology practitioners has led to the formation of the Korean Association of Private Practicing Neurologists in 2002, which is more concerned with sharing and solving practical issues such as reimbursement.

International activities. Another emphasis of the KNA is international collaborations. The KNA supported the founding of the Korean-American Neurological Association (KANA) in 1993 to achieve good communication and a cordial relationship between Korean and

American neurologists. The KANA hosts KNA alumni from Korea and abroad during the annual meetings, which have usually been held during the American Academy of Neurology meetings. The KNA has been trying to tighten the ties between Korean neurology and other parts of the world. The 9th AOCN in 1996 was the first international academic meeting hosted by the KNA. The 9th World Congress on Sleep Apnea (WCSA 2009), organized by Korean Society of Sleep Medicine, and the 7th World Stroke Congress (WSC 2010), organized by the Korean Stroke Society, were landmark events that facilitated an international network. Recently, the KNA has been participating in the East Asian Neurology Forum to share academic knowledge and regional concerns with the neurologic societies of Japan, Taiwan, Hong Kong, and China. Keeping up with the 30th anniversary of the KNA in November of 2012, we are currently preparing to make a new leap forward by planning to host World Congress of Neurology 2017 in Seoul.

Current concerns regarding neurology in Korea. Recently, developed countries have announced a reform plan for insurance services and drug regulations because of rapidly expanding health care-related expenditures.³ Korea has also been undertaking several health care reforms over the last 10 years.⁴ Korea now provides universal health insurance coverage (~97%) and operates the National Health Insurance (NHI) system as a single insurer, which is funded through mandatory insurance contributions, government subsidies, and tobacco taxes. Free access to medical institutions with high-quality care is secured to all of the population. The service coverage has been expanded to health promotion, prehospital emergency care, rehabilitation, medical devices for the disabled, and high-technology services including PET and MRI. Patients who cannot afford to pay NHI contributions are covered by the Medical Aid Program (MAP). This program has been expanded to cover patients with rare neurodegenerative diseases with partial support from the NHI. Since Korea has recently entered an aging society, medical expenditures for chronic neurodegenerative diseases are expected to continue rising.⁵ The government has been endeavoring to expand primary health care services and long-term care facilities to reduce the increasing demand for health care services related to chronic diseases. The Public Health Service, along with the NHI and MAP, facilitates health promotion and primary disease prevention, and a Long-term Care Insurance Program, which was introduced in 2008, provides medical services including baths, laundry, and nursing care for disabled elderly patients. The Health Insurance Review and Assessment Service reviews medical costs to ensure the financial stability of the NHI system. The KNA is working together with governments to find a solution to rising medical costs.

The development and launch of new drugs or devices have been hampered by regulations that are too strict by the Korea Food and Drug Administration. Bringing new materials, even if they are comprised of low-risk materials, to market now requires a substantial amount of time and cost. Furthermore, it takes several months or sometimes years to be added to the insurance package since they have to pass the Health Technology Assessment. The KNA has been modulating these insurance issues that occur in various neurology fields, such as deep brain stimulation, botulinum toxin therapy, tissue plasminogen activator, and devices for thrombolysis. Meanwhile, the KNA is working with the society on many ethical and social issues such as terminal care, stem cell therapy, and mad cow disease. We are acutely aware of the importance of the scientific community to be an effective communicator and to act as a trusted guide in complicated scientific issues. The KNA recently instituted a policy committee, which is actively involved with National Assembly members, health officials, and civic groups in the policymaking process.

Conclusion. Rapid development of the KNA parallels that of the Korean economy.⁶ Now, we are facing the challenges of a rapidly aging population and similar increases in medical expenditures. The future of the KNA will depend on how effectively we work with society by better informing patients, families, and society in general.

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Dr. Jung: acquisition of data, analysis and interpretation. Dr. Yang: critical revision of the manuscript for important intellectual content. Dr. Jeon: study concept and design, study supervision.

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