HISTORY OF NEUROLOGY IN TAIWAN

Neurology, as an independent medical specialty, is a relatively young field, originally stemming from internal medicine and psychiatry. The roots of neurology in Taiwan are no different. Modern neurology in Taiwan was established in the 1950s. Prior to that, neurologic diseases were uncommon and mainly consisted of infectious diseases of CNS. The 1950s brought on the establishment of dedicated neurology clinics and primary neurology training at various sites in Taiwan. The expansion of these sites continued to flourish over the next several decades. Neurology was further developed with the creation and induction of academic societies and conferences, as well as adoption of modern diagnostic techniques and therapeutics. This has firmly set neurology as a stand-alone specialty in Taiwan.

Western medicine came to Taiwan in 1865, when Dr. James Maxwell was the first Presbyterian mission to reach the country. He established the first Western-style hospital in what is currently Tainan. Although records from this period regarding neurologic disorders and their treatment are rare, surviving records suggest that the bulk of disease burden was primarily infectious. Common neurologic issues during that time period included neurologic complications secondary to syphilis, tuberculosis, and leprosy. Other neurologic disorders noted include epilepsy and neuropathies (beriberi, lead, and mercury poisoning). Overall, neurologic disorders consisted of only 2%–3% of the ailments for which patients sought medical attention.

In 1895, the island’s political environment led to major changes that affected every sphere of life when China ceded Taiwan to Japan. Taiwan became under colonial rule of Japan. From this period until the end of World War II, Taiwan underwent a phase of modernization. Improvements were made in its infrastructure and endeavors in public health led to the establishment of clinics as well as sewage and drainage system that helped eradicate prevalent infectious diseases. Goto Shinpei, a Japanese statesman and physician, has been credited with implementing many of the modernization projects that ultimately led to Taiwan’s financial independence from Japan.

Neurology as a distinct medical specialty started to come into existence in the late 1940s. The advent of newer diagnostic technology and additional medical knowledge of neurologic disorders pushed neurology into its own niche. The first 2 sites to develop dedicated departments toward treating neuropsychiatric illnesses were National Taiwan University Medical College (NTUMC) and its affiliated hospital, the National Taiwan University Hospital (NTUH), and the National Defense Medical College (NDMC).

The Department of Neuropsychiatry was first established at NTUH by Dr. Tsung-Yi Lin in 1947. A psychiatrist by training, Dr. Lin was the first chairman of the department and established the first formalized neurology teaching curriculum. New diagnostic technology such as EEG was first implemented at NTUH in 1954. This marked a revolution in clinical neurophysiology and epilepsy and led to the creation of a dedicated neurology clinic, including a pediatric epilepsy clinic in 1956. The NDMC pioneered neurosurgery in Taiwan with the creation of formal training and teaching programs under the guidance of Dr. Shi-Kuei Wang in 1949.

The seeds for the development of additional teaching sites came primarily from physicians who were sent abroad to learn the trade. Dr. Tsu-pei Hung was the first of these physicians to receive primary neurology training when he underwent additional training in electrophysiology at the National Hospital for Neurology and Neurosurgery at Queen Square in London, UK. Dr. Hung returned in 1961. In 1980, an independent Department of Neurology was established in NTUH with Professor Tsu-pei Hung as its first chairman. In addition to NTUMC and NDMC, other medical colleges and their affiliated hospitals were found. Physicians would train at these primary teaching centers and then branch off and develop as the first pediatric epilepsy clinic in 1956.
additional sites throughout Taiwan, such as Veterans General Hospital, Chang-Gung Memorial Hospital, Chung-Shan Medical College, China Medical College, and the Changhua Christian Hospital.

During this period, the expansion of academic neurology marked admittance to the World Federation of Neurology in 1962 and the creation of the Taiwan Neurological Society (http://www.neuro.org.tw/) in 1977. Taiwan also organized and hosted the 6th Asian and Oceanian Congress of Neurology annual meeting in 1983. As of 2014, there are 43 qualified training centers in Taiwan. A standard neurology residency training program requires 3 years of training after 1 year of general medicine and surgery training. Currently, there are more than 1,200 active members, of which 1,036 are board-certified neurologists (personal communication, May 4, 2014).

AUTHOR CONTRIBUTIONS
Dr. Su: drafting and revision of manuscript. Dr. Yang: data acquisition and conception and revision of manuscript. Dr. Trikamji: revision of manuscript. Dr. Mishra: data acquisition and conception and revision of manuscript.

ACKNOWLEDGMENT
The authors thank Dr. Tsu-Pei Hung and Dr. Ken Yi Lee for collecting the history of neurology in Taiwan, and Dr. Shey-Lin Wu, former president of the Taiwan Neurological Society, for providing additional data.

STUDY FUNDING
No targeted funding reported.

DISCLOSURE
The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

REFERENCES
History of neurology in Taiwan
Michael Su, Chih-Chao Yang, Bhavesh Trikamji, et al.
Neurology 2015;84;1803-1804
DOI 10.1212/WNL.0000000000001513

This information is current as of April 27, 2015

<table>
<thead>
<tr>
<th>Updated Information &amp; Services</th>
<th>including high resolution figures, can be found at: <a href="http://n.neurology.org/content/84/17/1803.full">http://n.neurology.org/content/84/17/1803.full</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>This article cites 3 articles, 0 of which you can access for free at: <a href="http://n.neurology.org/content/84/17/1803.full#ref-list-1">http://n.neurology.org/content/84/17/1803.full#ref-list-1</a></td>
</tr>
<tr>
<td>Subspecialty Collections</td>
<td>This article, along with others on similar topics, appears in the following collection(s): <a href="http://n.neurology.org/cgi/collection/all_education">http://n.neurology.org/cgi/collection/all_education</a>, <a href="http://n.neurology.org/cgi/collection/all_history_of_neurology">http://n.neurology.org/cgi/collection/all_history_of_neurology</a>, <a href="http://n.neurology.org/cgi/collection/all_infections">http://n.neurology.org/cgi/collection/all_infections</a>, <a href="http://n.neurology.org/cgi/collection/clinical_neurology_history">http://n.neurology.org/cgi/collection/clinical_neurology_history</a>, <a href="http://n.neurology.org/cgi/collection/medical_care">http://n.neurology.org/cgi/collection/medical_care</a></td>
</tr>
<tr>
<td>Permissions &amp; Licensing</td>
<td>Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://www.neurology.org/about/about_the_journal#permissions">http://www.neurology.org/about/about_the_journal#permissions</a></td>
</tr>
<tr>
<td>Reprints</td>
<td>Information about ordering reprints can be found online: <a href="http://n.neurology.org/subscribers/advertise">http://n.neurology.org/subscribers/advertise</a></td>
</tr>
</tbody>
</table>

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2015 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.