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History of Korean Spinal Neurosurgery Society

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HISTORY OF NEUROSURGERY IN SOUTH KOREA

In Korea, prior to 1945, neurosurgery was not built up yet, and it was a part of the general surgery just like as orthopedic surgery, thoracic surgery, and plastic surgery. The surgical landscape of Korea began changing in 1945, as United States of America (U.S.) troop started being stationed in the country. Surgical specialties began to develop in 1950, with the participation of the United States in the Korean War, to provide surgical treatment, including neurosurgery, for wounded soldiers whose injuries were classified according to their anatomical location [1]. The military surgeons working at the U.S. Mobile Army Surgical Hospital, evacuation and field hospitals, and the Army Hospital in Seoul had excellent surgical skills, levels, and access to equipment and treated their Korean counterparts with courtesy and respect. Some of the Korean military surgeons were given the opportunity to go to the Third U.S. Army General Hospital in the United States to acquire expertise in surgical techniques [2,3]. Currently, spinal neurosurgery is significantly more advanced than any other subspecialties of neurosurgery in both academic and clinical settings, plays an important role in the development of neurosurgery in Korea, and looks forward to a promising future.

FOUNDATION AND GROWTH OF KOREAN SPINAL NEUROSURGERY SOCIETY

In October 1987, based on the individual initiatives of Professors Hwan Yung Chung and Young Soo Kim, a group of founding members of the Korean Spinal Neurosurgery Research Society was set up to improve clinical and basic research in spinal neurosurgery and promote academic exchanges and social interactions among members. An application for approving a new society was submitted to the Korean Neurosurgical Society, and on October 22, 1987, the application was approved in a complete meeting of the board of directors of the Korean Neurosurgical Society. Further, the Korean Spinal Neurosurgery Society (KSNS) was reported to the regular annual meeting held on October 23, 1987 as the third research society to be launched under the umbrella of the Korean Neurosurgical Society, following the Korean Cerebrovascular diseases Research Group and Korean Pediatric Neurosurgery

Research Society. The inaugural meeting of the Korean Spinal Neurosurgery Research Society was held on December 19, 1987 in Hanyang University Medical Center in tandem with the first academic conference, in which 58 neurosurgeons participated and 8 conference papers were presented (Fig. 1). At the inaugural meeting, Professor Hwan Yung Chung was elected as the first president of the Korean Spinal Neurosurgery Research Society, and Professor Young Soo Kim was elected as the director-general of the society. In addition, Sang Jin Kim, Soo-Han Kim, Jae Hong Sim, Hyun Jib Kim, Bark Jang Byun, Jung-Keun Suh, Myung Soo Ahn, and Mun Bae Ju were elected as managing directors, and Sun Kil Choi and Sang Won Lee were elected as auditors. Further, 23 members headed by In Hong Kim were elected as directors (Figs. 1, 2) [4]. The Korean Spinal Neurosurgery Research Society expanded in terms of popularity and membership steadily over the following decade and, on December 17, 1999, it was renamed the Korean Spinal Neurosurgery Society with the approval of the Korean Neurosurgical Society. On March 18, 2008, the KSNS became a regular member of the Korean Academy of Medical Sciences.

Due to the efforts of Hwan Yung Chung, who was the first president of the KSNS and served 2 presidential terms; Young Soo Kim, who took over the presidency from Chung; and their successors (currently, the 20th president) and their managing

staff, 30 annual academic meetings have been held successfully from the founding year to the present day (Table 1). Moreover, 4 annual winter meetings have been held since February 2015 [5].

Fig. 2. The first president and managing directors of the Korean Spinal Neurosurgery Research Society in 1987, from left to right, Hwan Yung Chung, Jung-Keun Suh, Sang Jin Kim, Hyun Jib Kim, Bark Jang Byun, Young Soo Kim, and Mun Bae Ju. Photo Courtesy of the Korean Spinal Neurosurgical Society.

Fig. 1. The first Annual Academic Meeting and inaugural meeting of Korean Spinal Neurosurgery Research Society in 1987.

Table 1. Annual Academic Meeting of Korean Spinal Neurosurgery Society

	Date	Place
1st	1987. 12. 19	Hanyang University Hospital, Seoul
2nd	1988. 12. 3	Allen Hall, Yonsei University, Seoul
3rd	1989. 12. 22	Yongdong Severance Hospital, Yonsei University, Seoul
4th	1990. 12. 1	Yongdong Severance Hospital, Yonsei University, Seoul
5th	1991. 12. 21	Korea University Anam Hospital, Seoul
6th	1992. 11. 28	Yongdong Severance Hospital, Yonsei University, Seoul
7th	1993. 11. 16	Inchon Memorial Building, Korea University, Seoul
8th	1994. 11. 12	College of Natural Sciences, Choongnam National University, Daejeon
9th	1995. 11. 16	Chonbook National University Hospital, Jeonju
10th	1996. 9. 13	Inchon Memorial Building, Korea University, Seoul
11th	1997. 9. 5–6	Yongbong Hall, Chonnam National University, Gwangju
12th	1998. 9. 19	Samsung Medical Center, Sungkyunkwan University, Seoul
13th	1999. 9. 15–17	Olympic Parktel, Seoul (Joint Meeting with 2nd KJCSS)
14th	2000. 9. 15–16	Scheduled to be held in Gyeongju, but cancelled due to medical strike
15th	2001. 8. 31–9. 1	Chonnam National University Hospital, Gwangju
16th	2002. 9. 13–14	Hotel Tirol, Muju Resort, Muju
17th	2003. 9. 18–20	Hyundai Hotel, Gyeongju (Joint Meeting with 4th KJCSS)
18th	2004. 10. 1–2	HIT Building, Hanyang University, Seoul
19th	2005. 10. 21–22	Severance Hospital, Yonsei University, Seoul
20th	2006. 9. 1–2	Asan Medical Center, University of Ulsan, Seoul
21th	2007. 9. 7–9	Severance Hospital, Yonsei University, Seoul
22th	2008. 9. 5–7	Art Center, Chung-Ang University, Seoul
23th	2009. 9. 11–13	IT Service Center, Kyungpook National University, Daegu
24th	2010. 9. 9–11	Hyatt hotel, Incheon (Joint meeting with 1st Asia Spine and 8th KJCSS)
25th	2011. 9. 23–24	Korea University Anam Hospital, Seoul
26th	2012. 9. 14–15	BEXCO Convention Hall, Busan
27th	2013. 10. 3–5	Hyundai Hotel, Gyeongju (Joint meeting with 4th Asia spine)
28th	2014. 9. 26–27	Global Plaza, Kyungpook National University, Daegu
29th	2015. 9. 11–12	The K Hotel, Seoul
30th	2016. 9. 22–24	The K Hotel, Seoul (Joint meeting with 7th Asia spine)
31th	2017. 9. 15–16	Yonsei University, Seoul

KJCSS, Korea-Japan Conference on Spinal Surgery.

Table 2. Six affiliated research societies of Korean Spinal Neurosurgery Society

Year	Research societies
2002	Korean Minimally Invasive Spine Surgery Society
2007	Korean Cervical Spine Research Society
2009	Korean Spinal Deformity Society
2010	Korean Spine Research Society (former Korean Spinal Neurosurgery Research Society)
2014	Korean Spinal Osteoporosis Society
2014	Korean Spine Oncology Research Society

DEVELOPMENT OF SUBSPECIALTY SOCIETIES AND REGIONAL SOCIETIES

In line with increasing subspecialization due to continuous advancements in all medical fields, the discipline of spinal neurosurgery has also fragmented into many subspecialties and their respective research societies have been established under the umbrella of the KSNS. Currently, 6 research societies are actively carrying out research projects (Table 2). Furthermore, with the aim of providing competitive advantage to regional institutions and treatments in spinal surgery and enhancing their research competence to global standards, the KSNS set up a project to establish regional society in areas where there are more than 300 members and 3 or more hospitals offering specialist training in the relevant subfields. Hence, Daegu-Gyeongbuk Branch was established in November 2013, which was followed by Honam Branch in 2016, Busan-Ulsan-Gyeongnam Branch in 2017, and Daejeon-Chungcheong Branch in 2018. By July 2018, with 479 permanent, 1,100 regular, 183 associate, and 123 special and honorary members, totaling 1,895 members, the KSNS has grown to become the largest society under the Korean Neurosurgery Society and plays a central and leading role in South Korean spinal research as a world-class society.

INTERNATIONAL AND FRIENDSHIP ACTIVITIES OF KSNS

As the first of its many international activities, the KSNS co-hosted the Biennial Meeting of the Korea-Japan Conference on Spinal Surgery (KJCSS) with the Neurospinal Society of Japan between 1997 and 2009. The discussion regarding a joint meeting was initiated by some Korean professors, including Young Soo Kim, Sun Kil Choi, and Jung-Keun Suh, who had participated in the 11th Annual Meeting of the Neurospinal Society of Japan held in Nagoya on June 6, 1996 and Japanese professors led by Hiroshi Nakagawa, president of the Neurospinal Society of Japan and professor of Aichi Medical University. This led to the establishment of the KJCSS under concerted efforts. The Korean and Japanese representatives decided to hold the KJCSS every 2 years, alternating the venue between Korea and Japan, and elected Professor Nakagawa as the first president. The first KJCSS meeting was held in Nagoya in the fall of 1997, and the second meeting took place in Seoul in 1999 under the presidency of Professor Young Soo Kim. Subsequently, KJCSS meetings took place every 2 years in Korea and Japan alternately until 2009.

Table 3. Korea-Japan Conference on Spinal Surgery and ASIA SPINE

	Date	Place
1st KJCSS	1997. 9. 18–20	Nagoya, Japan
2nd KJCSS	1999. 9. 15–17	Seoul, Korea
3th KJCSS	2001. 6. 20–22	Yokohama, Japan
4th KJCSS	2003. 9. 18–20	Gyeongju, Korea
5th KJCSS	2005. 6. 9–10	Sapporo, Japan
6th KJCSS	2007. 3. 29–31	Busan, Korea
7th KJCSS	2009. 7. 1–3	Nikko, Japan
ASIA SPINE 2010 Jointly with 8th KJCSS	2010. 9. 9–11	Incheon, Korea
ASIA SPINE 2011 Jointly with 9th KJCSS	2011. 9. 1–3	Fukuoka, Japan
ASIA SPINE 2012	2012. 9. 7–9	Kaohsiung, Taiwan
ASIA SPINE 2013	2013. 10. 3–5	Gyeongju, Korea
ASIA SPINE 2014	2014. 6. 13–14	Tokyo, Japan
ASIA SPINE 2015	2015. 6. 13–14	Taipei, Taiwan
ASIA SPINE 2016	2016. 9. 22–24	Seoul, Korea
ASIA SPINE 2017	2017. 6. 9–10	Osaka, Japan
ASIA SPINE 2018	2018. 6. 9–10	Taipei, Taiwan

KJCSS, Korea-Japan Conference on Spinal Surgery.

In 2010, the KJCSS was held in Incheon with the title “2010 Asia Spine Jointly with KJCSS” (presided by Seung Chul Rhim), and it extended its scope of cooperation to Asia, thereby paving the way for the launch of ASIA SPINE. Since this first joint meeting, ASIA SPINE has been held every year, with its venue rotating in the order of Japan, Taiwan, and Korea, from 2011 onward. In 2013 and 2016, the fourth and seventh ASIA SPINE joint meetings were held in Gyeongju (presided by Jae-Won Doh) and Seoul (presided by Chun Kee Chung), respectively, with remarkable success (Table 3).

The year 2007 witnessed the creation of the Asian-Pacific Congress of Spinal Surgery (APCSS; presided by Do Heum Yoon) initiated by the Korean Cervical Spine Research Society, which is one among the 6 research societies within the KSNS. Furthermore, a collaboration of APCSS with the Korean American Spine Society was launched in 2008 to facilitate the international exchange of human resources.

JOURNALS AND PUBLICATION OF KSNS

The inaugural issue of the *KSNS newsletter* was published in January 2001 to promote the exchange of information and knowl-

edge among the society's members. Further, in March 2004, the inaugural issue of the *Korean Journal of Spine (KJS)*, which is the official journal of the KSNS and is published quarterly, was published. Since its launch on August 2, 2004, the official website of the KSNS has played a pivotal role in promoting information and knowledge exchange among members. In 2009, the *KJS* was selected as a candidate journal for registration in the National Research Foundation of Korea. Further, in July 2010, the e-submission site was launched, which has become a hub for online research exchange today. From its December 2011 issue onward, the *KJS* has been published in English, with a view to becoming a global journal, and has been accepted for indexing in PubMed and other bibliographic databases. In March 2018, the *KJS* was renamed *Neurospine* and made the official journal for ASIA SPINE and the Korean, Japanese, and Taiwanese spinal neurosurgery societies, thereby becoming an internationally acclaimed academic journal.

In 2007 and 2017, on the occasions of its 20th and 30th anniversaries, the KSNS published the "20 Year History of the Korean Spinal Neurosurgery Society" and "30 Year History of the Korean Spinal Neurosurgery Society," respectively [4,5]. In 2008, the KSNS published the *Textbook of Spine* (KOONJA Publishing Inc, October 1, 2008, Korean Spinal Neurosurgery Society), a comprehensive compilation of highly specialized cutting-edge knowledge in spinal research. Its revised edition, the *Textbook of Spine, 2nd edition*, was published in October 2013. The *Textbook of Spine, 2nd edition*, is the result of an interdisciplinary collaboration among specialists in neurosurgery, radiology and nuclear medicine, and rehabilitation medicine; it covers the entire spectrum of spinal cord disorders from diagnosis to treatment and describes all treatment options, both surgical treatments including traditional surgical techniques and most recent techniques, such as dynamic reconstruction of the spine, and nonsurgical treatments, such as medication, physiotherapy, nerve block, and rehabilitation. In 2016, it was designated the textbook for the neurosurgery specialty certification examination. We expect the new 3rd edition of the textbook of Spine to be published in September 2018.

In 2010, the KSNS compiled and published the *Surgical Atlas of Spine* (KOONJA Publishing Inc, September 9, 2010, Korean Spinal Neurosurgery Society). This book was written in English and has been sold across the globe. The book provides a description of each surgical step along with detailed illustrations by Korea's first medical illustrator with extreme precision and accuracy. In 2012, the KSNS published the first textbook of the

Minimally Invasive Spine Surgery Society titled *Minimally Invasive Spinal Surgery*. In September 2016, it published a textbook on the anatomy of the spinal cord and vertebral column titled *Anatomy of Spinal Cord and Peripheral Nerves*. The Ministry of Culture, Sports and Tourism selected the *Textbook of Spine* (2008) as an outstanding book in 2009 and the *Surgical Atlas of Spine* (2010) in 2011, which prominently established the prestige of our KSNS.

CONCLUSION

Over the past 30 years, the KSNS has progressed much due to the devoted efforts of our predecessors and colleagues. Despite encountering grave challenges in collecting and collating earlier data due to their limited availability, we have extended our utmost effort in compiling an inventory of the records spanning the previous 3 decades, since we consider them valuable assets of the proud history of the KSNS. At this point in history when we are contemplating a quantum leap into the global stage, all members should step up their individual efforts to strengthen the global prestige of the KSNS.

CONFLICT OF INTEREST

The authors have nothing to disclose.

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