

## History and description of Hand Surgery in Korea

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### 1. A brief history of hand surgery in Korea

The Korean Orthopaedic Association (KOA) was founded in 1948. After the Korean War (1950 – 1953), Korea has made a rapid economic progress from a country impoverished by war. At that time, many new factories were built and many patients suffered from hand injuries but could not get proper care. The Korean Society of Plastic and Reconstructive Surgeons (KSPRS) was founded in 1966. In the late 1960s and early 1970s, some orthopaedic and plastic surgeons at several university hospitals began performing technically demanding hand surgeries, including replantation and microsurgery. They mostly had studied abroad or trained themselves with animal models. Some of these surgeons who were interested in hand surgery had an inter-hospital friendship meeting called “Scandinavian club”, which had been named in commemoration of the Scandinavian nations who had donated many new medical equipments to the National Medical Center in central Seoul area during the post-war era. By these surgeons, the Korean Society for Surgery of the Hand (KSSH) was established on October 29<sup>th</sup> in 1982, with 19 members at the beginning. Subsequently the KSSH became one of the sub-societies under the Korean Medical Association (KMA) in December 1982. The KSSH had its first scientific meeting in 1983 and continued to have annual congresses twice a year, once in the spring and once in the autumn (Fig. 1).

The autumn annual congress has been held every year in Seoul since 1983, and it was open to the international hand surgeons since 2016 where the official language was English. The KSSH invited travelling fellows from Asian countries to attend this meeting. In 2017, seven young

surgeons from Taiwan, Japan, Malaysia, Hong Kong, Singapore, and Russia presented their own topics as travelling fellows.

The spring congress is held every year since 1984, the Korean Society for Microsurgery joined the spring congress in 1998, and the KSSPN (Korean Society for Surgery of the Peripheral Nerve) in 2017. This meeting is mainly composed of symposia, instructional course lectures, young surgeon sessions, and case discussions.

In 1987, another separate society of hand surgery was formed by plastic surgeons. This society, named the Korean Reconstructive Hand Surgery Society (KRHSS), also had had annual congresses until 2003. The two societies, the KSSH and the KRHSS, merged into one, the KSSH in 2003. On December 10 in 2003, the 1<sup>st</sup> council meeting of the united two hand societies was held. In 2017, the KSSH had the 35<sup>th</sup> anniversary of its foundation. In 2016, 84 orthopaedic and plastic surgeons established the Korean Society for Surgery of the Peripheral Nerve (KSSPN), a sister society of the KSSH. The KSSPN held its first congress in November 2016 in collaboration with the KSSH.

As of 2018, there are about 1,277 members in the KSSH, of which 236 are board certified hand specialists. Among 236 hand specialists, about 100 hand surgeons are mainly treating patients with hand conditions, and the rest of them are performing surgeries occasionally.

## **2. Training system**

One who wants to be an orthopaedic or plastic surgeon should fulfill a one-year internship program and then 4-year orthopaedic or plastic residency program, after graduating from a medical school. Basic skills of hand surgery was trained during the residency programs. These residency programs are controlled by the Korean Hospital Association and the Ministry for health welfare and family affairs, which are responsible for quality control of all hospitals in

Korea. After finishing the residency program and passing the board examination, one can practice hand surgeries as a general orthopedic or plastic surgeon either at a private clinic or at a hospital. If one wants to be a hand surgery specialist, one should join a hand surgery fellowship program for one or two years in the hospitals that are qualified and allowed for the fellowship training. After finishing the fellowship, one can apply for the hand surgery board examination and after passing the test, one can work as a board certified hand surgery specialist. Hospitals that can have a hand surgery fellowship program are controlled by the KSSH, and have to submit hand-related patient records and educational programs to the KSSH every 5 years to maintain the qualification.

### **3. Certification of hand surgeons in Korea**

In 2003, the Korean Orthopaedic Society (chairman, Prof. MS Chung) and the Korean Society of Plastic and Reconstructive Surgeons (chairman, Prof. YH Lee) approved the hand surgery as a subspecialty. Subsequently the Korean Society for Surgery of the Hand (KSSH) and the Korean Reconstructive Hand Surgery Society (KRHSS) merged into one the KSSH. In order to control the quality of hand surgeons and education, the unified KSSH established a new education program and evaluation system under the supervision of the Korean government, which was approved in 2004.

The KSSH organized the first examination for the specialty certificate in surgery of the hand in 2005. The qualifications are such that an applicant should have practiced at least 4 years as a board-certified orthopedic or plastic surgeon, should be a member of the KSSH, should have finished at least one-year hand fellowship program that is approved by the KSSH, and should have certain credits in the publication of scientific papers regarding hand surgery and in attending domestic or international hand surgery meetings. At the first examination, 195 young

and old surgeons applied and 160 of them were qualified as the hand surgery specialist. Afterwards, the examination takes place once a year and about 10 new hand surgeons get the certificate. As of 2018, there are 236 certified hand surgery specialists in Korea.

#### **4. International Congresses held in Korea**

The KSSH has successfully held international hand society meetings. In 2002, the 4<sup>th</sup> Biennial Congress of the Asian Pacific Federation of Societies for Surgery of the Hand (APFSSH) took place in Seoul (President, Prof. KC Tark). In 2010 the KSSH hosted the 11<sup>th</sup> Triennial Congress of the International Federation of Societies for Surgery of the Hand (IFSSH) in Seoul from 31<sup>st</sup> October to 4<sup>th</sup> November (President, Prof. MS Chung; General Secretary, Prof. GH Baek). A total of 1,502 individuals from 61 countries participated in the congress (Figs. 2-1, 2-2). The 9<sup>th</sup> Congress of the World Society of Reconstructive Microsurgery (WSRM) was held in Seoul, from 15<sup>th</sup> June to 17<sup>th</sup> June in 2017 (President, Prof. MC Park; Co-President, Prof. GH Baek).

#### **5. Publications on hand surgery**

The KSSH has been publishing “The Journal of Korean Society of Surgery of the Hand” since 1996, and the Korean Society for Microsurgery has been publishing “The Journal of Korean Microsurgery” since 1995. These two journals were merged into “Archives of Hand and Microsurgery (AHM)” in December 2017 (Fig. 3). The AHM is published 4 times a year. The AHM is also the official journal of the Korean Society for Surgery of the Peripheral Nerve. In 2005, the first textbook of hand surgery written in the Korean language, two volumes with 1,725 pages, was published by Profs. MS Chung and GH Baek (Fig. 4).

## **6. Pioneers of hand surgery in Korea and their contributions**

The late professor Byung Hoon Ahn, had studied hand surgery at Oslo University in 1965, and he was the Congress chairman of the 19<sup>th</sup> SICOT Meeting which was held in Seoul, Korea in 1993. Professor Ik Dong Kim who was a former president of the Kyungpook National University, was trained at the University of Pittsburgh and had many experiences on a reconstruction of the paralytic hand including the leprotic hand. Professor Young Ho Lee was one of the founding members of the KSSH and the first inaugural chairman of the KRHSS. Professor Eung Shick Kang was one of the founding members who introduced the hand surgery as one of specialties in orthopaedic surgery. Professor Se Min Baek, who developed pectoralis major flap and lateral thigh flap for the first time. Professor Moon Sang Chung had operated on a lot of babies with congenital hand differences, and published the first Korean textbook on hand surgery in 2005. Four emeritus professors were honoured by the IFSSH as Pioneer of Hand Surgery - Ik Dong Kim, Young Ho Lee, Eung Shick Kang, and Moon Sang Chung.

## FIGURES

Fig 1. The logo of the KSSH. The KSSH joined the IFSSH in 1989.



Fig. 2-1. Fanfare played by Korean traditional brass band to celebrate the opening ceremony.



Fig. 2-2. A photo taken at the Presidential dinner of the 11<sup>th</sup> IFSSH Congress

(From left to right: President of the IFSSH, Prof. Urbaniak; Mrs. Baek; General Secretary of the IFSSH, Prof. Tonkin; Mrs. Urbaniak; Mrs. Tonkin; General Secretary of the Congress, Prof. Baek)



Fig. 3. Archives of Hand and Microsurgery, the official journal of the KSSH, the Korean Society for Microsurgery, and the Korean Society for Surgery of the Peripheral Nerve.

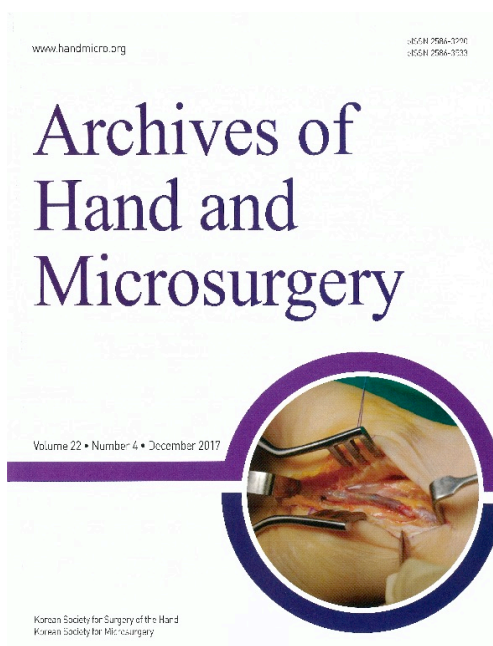


Fig. 4. The first textbook of hand surgery written in the Korean language.



Fig. 5. Hands that prepare Kimchi. A taste of Korean food comes from a flavor of mother's hand.





Fig. 6. A Gayageum, a twelve-stringed Korean harp requires delicate motion of hands.



Fig. 7. A fist in Taekwondo. Taekwondo is a Korean martial art of self-defense.

