

Historical Perspectives of The Korean Society for Thoracic and Cardiovascular Surgery: The Pioneer of General Thoracic Surgery in Korea: Pyung-Kan Koh 고병간 高秉幹(1899-1966)

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The history of Thoracic and Cardiovascular Surgery in Korea is considered to have begun after World War II. Medical knowledge from the United States began flooding into Korea after the Korean War, facilitating the development of our society [1,2]. On June 7, 1949, Dr. Pyung-Kan Koh (Fig. 1) succeeded in performing the first pneumonectomy in Korea at Daegu College of Medicine Hospital (now called Kyungpook National University Hospital) [3,4]. This occurred 16 years after the first pneumonectomy in the world, which was performed by Dr. Evarts A. Graham in 1933 in the United States.

Pyung-Kan Koh was the first-born child of Seung-Heon Koh in Uiju, Pyeonganbuk-do, Korea on January 24, 1899. After he graduated from Shinyoung Elementary School in Uiju, Pyeonganbuk-do in 1915, he attended Sinsung Middle School in Sonchon, Pyeonganbuk-do. The principal of the middle school was an American missionary, George Shannon McCune (also known as San-On Yoon). Koh was a quiet child who was studious and hard working, achieving higher grades than his classmates. He faithfully followed the Christian creed and was trusted by the schools'



Fig. 1. Dr. Pyung-Kan Koh (1899-1966) who performed the first thoracoplasty and pneumonectomy in Korea.

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Christian missionaries. As he was older than his classmates, he understood the situation of the forceful occupation of Korea better than his peers and showed a stronger antipathy toward Japan.

Koh, as a middle school student, joined the March 1st Independence Movement on March 1, 1919, the biggest nonviolent anti-Japan demonstration in Korean history. Never defeated by injustice, he was arrested by the Japanese police and detained in Sinuiju Police Department. He continued to assert that the independence movement was just and that independence was a legitimate right of the Korean people, but he was imprisoned in Pyongyang Prison for one and a half years. After his release in 1920, he was able to return to school and graduate due to the efforts of his teachers and missionaries at Sinsung Middle School. The following year, he entered Severance Union Medical College (now called Yonsei University College of Medicine).

During his years in medical school, his pursuit of religion, his relationships with his peers, and his dedication to his academic work were outstanding. He was the most-favored student by professors when he graduated from Severance Union Medical College at the age of 26 in 1926. At that time, Dr. Alfred Irving Ludlow, a surgeon with a remarkable personality who focused mainly on medical research and missionary work, was in the Department of Surgery. Koh studied general surgery under the guidance of Dr. Ludlow and was appointed as the chief surgeon of Jehye Hospital in Hamheung, Hamgyeongnam-do in 1927. In those days, Jehye Hospital was flooded with so many tuberculosis patients that it had to change its infection ward into a tuberculosis ward. At the time, surgery was the only treatment for tuberculosis, as the first medicine used to treat tuberculosis, Streptomycin, was not developed until 1943 [5]. After working at Jehye Hospital for eight years, Koh moved to Japan in 1934 and entered the Kyoto Imperial University College of Medicine (now called the Kyoto University Graduate School of Medicine) to extend his experience in general thoracic surgery.

In 1937, he returned to Korea and worked as a professor in the Department of Surgery at Severance Union Medical College. He tried hard to establish a Department of Thoracic and Cardiovascular Surgery and train future doctors. However, his attempt to launch a new department was hampered by the out-



Fig. 2. Koh invited Dr. W. Scott for an academic lecture held at Daegu College of Medicine on June 6, 1948. (Front line, from right to left; third and fourth is Dr. W. Scott and his wife, fifth is Koh).

break of the Sino-Japanese War and the subsequent lack of supplies. Moreover, all missionary professors were forced to return to their home countries due to the looming war between the United States and Japan. In spite of these difficulties, Koh obtained doctoral degree in medicine in 1940 with the research he conducted at Kyoto Imperial University College of Medicine [6].

Following liberation from the Japanese occupation in 1945, all sectors of Korean society were in the early stages of development including public offices, educational institutions, and medical facilities. Koh accepted a job offer from the United States Army Military Government in Korea as the principal of Daegu College of Medicine (Fig. 2) and started reconstructing regional educational institutions and thoracic surgery. He took office in 1945 and continuously improved the quality of the college. Daegu College of Medicine later became Kyungpook National University School of Medicine in 1952.

Koh was a man of sincerity and diligence not only in research and study but also in education and medical treatment, inspiring even those who did not know him well. He always pursued the right course of action and never compromised his principles. This was why he was called "Dr. Balky Koh."

In 1947, Koh was deeply impressed by the developments of Thoracic and Cardiovascular Surgery in the United States that he observed on his way back to



Fig. 3. Dr. Koh with graduates when he served as the Dean, celebrating the fourth graduation of Daegu College of Medicine in 1952. (First row, center is Koh).

Korea after attending an international cancer conference in Portugal. During his time as the Dean of the College of Medicine, he focused on developing thoracic surgery as well as administrative activities.

On October 6, 1948, Koh was invited to Masan National Tuberculosis Hospital and performed the first thoracoplasty with the assistance of Dr. Sung-hwa Yoo from Severance Union Medical College, making him the pioneer of general thoracic surgery in Korea. Next year, on June 7, 1949, Koh succeeded in performing a pneumonectomy for the first time in the Korea [3], again with the assistance of Dr. Sung-hwa Yoo. Local procaine anesthesia was used, as this was before the age of general anesthesia using intubation at Daegu College of Medicine Hospital. After this first pneumonectomy, Koh visited Masan

National Tuberculosis Hospital over 30 times to perform thoracoplasties and pneumonectomies [5,7]. The results of the surgery were so satisfactory that he recalled this time as the most rewarding moment of his life as a thoracic surgeon. Doctors who took part in these surgeries under Koh's leadership included Dr. Sung-hwa Yoo from Severance Union Medical College, Dr. Wan-Young Lee from Masan National Tuberculosis Hospital, and Dr. Sung Haing Lee from Daegu College of Medicine. They followed in his footsteps, laying the groundwork for Thoracic and Cardiovascular Surgery in Korea [4,5].

Koh was the manager of the Korean Red Cross Gyeongsangbuk-do branch in 1949 and became the Vice Minister of Culture and Education in 1951. In 1952, he was appointed as the first president of

Kyungpook National University and concurrently served as the Dean of the School of Medicine (Fig. 3). He enacted the university's development plan with his own initiative and tenacity. In 1953, he was elected as the sixth and seventh president of the Korean Surgical Society and in 1955, as the second president of the Korean National Tuberculosis Association.

Koh also supported the construction of the Christian Center in Kyungpook National University when the Christian Student Council raised funds for the establishment. The anthem of Kyungpook National University was written by Koh himself, and the music was composed by Professor Je-Myoung Hyun, Dean of the School of Music, Seoul National University, who was born in Daegu. It was first sung on May 28, 1958, at the university's 6th anniversary.

Koh was appointed as the second president of Kyungpook National University again in 1959, but he resigned the following year and served as the president of Yonsei University. In 1961, he devoted himself to the development of Severance Hospital as its director and in 1964, he was appointed as the Dean of Soongsil University, a Christian university founded in Pyongyang, North Korea, which moved to Seoul, South Korea, after the Korean war.

Unfortunately, in 1966, at the national university presidents' meeting, Koh had a cerebral stroke and passed away on December 11, at the age of 67, leaving one son and four daughters with his wife Eun-Il Gong whom he had married when he was a sophomore in middle school.

Professor In-Gon Shim of Yonsei University, a classmate of Sinsung Middle School, recalls that [8]:

While Koh was very competitive and tried to attain the top position in every field, he was also focused on finding peace in his mind and body. I once visited him in Yeonhui-dong when he was the Dean of Soongsil University. Behind the gate, there was neither garden, porch, and nor parlor. In the room, I couldn't see any calligraphy works by Jung-Hee Kim (famous calligrapher during Lee dynasty), any paintings by Rembrandt, or any Danish furnitures. His house was a world away from the houses of today's university presidents

and doctors. I lamented his scanty reward as an educator who had dedicated his whole life to education and medicine. Koh made his students affluent, but not himself. In this shabby house, he spent the rest of his life—simple and plain, but full of noble contemplation.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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References

1. Hong PW. *Vision of thoracic and cardiovascular surgery in Korea*. Korean J Thorac Cardiovasc Surg 1983;16:427-30.
2. Kim SY; Daegu Medicity Center. *Medical service and health care providers*. In: Daegu Medicity Center, editor. *Medicity Daegu 100 years*. Daegu: Daegu The Maeil Shinmun; 2014. p. 276-85.
3. Yoo SH. *Thesis collection in commemoration of Dr. Yoo Sung-hwa's 60th birthday*. Seoul: Ewha Womans University School of Medicine; 1979.
4. Lee SH. *A short history of Korean thoracic surgery in commemoration of 70th birthday*. Busan: Pusanilbo; 1989.
5. Kim SC, Hong YP, Jin BW, Kim SY. *Korean National Tuberculosis Association 60 years*. Seoul: Korean National Tuberculosis Association; 2014.
6. Koh PK. *The production of anti-bodies in the testis*. In: *Theses collection in commemoration of Dr Pyung-Kan Koh's 60th birthday*. Daegu: Kyungpook National University; 1960. p. 1-74.
7. The Korean Society for Thoracic and Cardiovascular Surgery. *Growth and changes*. In: The Historical Records Preservation Committee, editor. *2015 Thoracic and cardiovascular surgery white paper: growth and prospects*. Seoul: The Korean Journal of Thoracic and Cardiovascular Surgery; 2015. p. 36.
8. Sinsung Alumni. *The Educational World*. In: *The 100th Anniversary of the Foundation-The History of Sinsung Academy*. Seoul: Sinsung Alumni; 2006. p. 415-6.