

A Giant in Turkish Neurosurgery: Prof. Dr. Aykut Erbenği (1929-2013)

Türk Nöroşirürjisinde Bir Dev: Prof. Dr. Aykut Erbenği (1929-2013)

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The founder of the Hacettepe University Neurosurgery Department Prof. Dr. Aykut Erbenği was born in 1929 in Sivas. His father was a military veterinarian. After he finished Ankara Atatürk High school, he graduated from Ankara University Medical Faculty in 1953. He started to be interested in neurosurgery after observing certain cranial and spinal pathologies diagnosed by Prof. Dr. Şükrü Yusuf Sarıbaş in the neurology clinic and the surgeries performed by Prof. Dr. Eduard Melchior in the general surgery clinic in his student years (3). However, his lecturers he consulted said that "he should first be a general surgeon". Therefore, he completed his specialization between 1953 and 1957 at the same faculty and became a General Surgery specialist (Figure 1). He married his classmate Dr. Günaydın (Evinay) Erbenği in 1957. Following his military duty, he started to work at Hacettepe Pediatric Health Institute in November 1958. The institute mostly performed general pediatric surgery at that time.

Neurosurgical operations officially started at Hacettepe in April 1959 when Dr. Vahdettin Türkmen who had specialized in neurosurgery at Pennsylvania University (USA) started work (4). Dr. Erbenği writes in his memoirs that "Dr. Türkmen with his extraordinary surgical technique and theoretical knowledge is among the top brain surgeons I know" (3). They operated on 63 patients, mostly children, in the first year. The first ventriculo-atrial shunt in Turkey was performed by Dr. Türkmen and Dr. Erbenği in that period (6). Dr. Türkmen returned to the USA in spring 1960. Dr. Nurhan Avman who again had specialized in the USA started work instead. Dr. Erbenği continued his neurosurgery specialization by working together with Dr. Avman. According to the regulation of that period, he took the specialization exam in September 1961 and became a neurosurgery specialist. Prof. Dr. İhsan Dođramacı, Prof. Dr. Şükrü Yusuf Sarıbaş, Prof. Dr. Sami Gürün, Prof. Dr. Rasim Adasal and Spec. Dr. Nurhan Avman was present at the specialization



Figure 1: Dr. Erbenği (arrow) during his General Surgery Specialization at Ankara Medical Faculty (Clinic Chief Prof. Dr. Kamil Sokullu sitting in the first row).

exam jury (Figure 2). The subject of his specialization thesis was "Surgical Treatment of Hydrocephalus" (2). He was registered as the tenth neurosurgery specialist of the Republic of Turkey in the specialization registry book of the Ministry of Health (1). However, "not finding himself adequately trained in this area" he went to the USA in November 1961 for further studies (4).

THE AMERICA YEARS

He worked at the Lahey Clinic (Boston-Massachusetts) together with Dr. James L. Poppen and Dr. Charles A. Fager, who were among the leading brain surgeons of that period, between 1961 and 1963 (Figure 3). He studied in Dartmouth Medical School, where Dr. Ernest Sachs Jr was the head of the department, and its hospitals (Hanover-New Hampshire) between 1963 and 1967 (Figure 4). Thus, he studied Neurosurgery for a total of 6 years in USA. He stated that he studied "mainly academically" (4).

THE HACETTEPE YEARS

Dr. Nurhan Avman left Hacettepe in 1965 in order to establish the Neurosurgery Clinic at Ankara Faculty of Medicine. Dr. Erbenği returned to Hacettepe in July 1967 after his training in America. The unit had become a department when the

institution became "Hacettepe University" with Law no. 892 dated 8 July 1967. Dr. Erbenği became a neurosurgery associate professor at Hacettepe University Faculty of Medicine in 1967. His thesis to become an Associate Professor was "The Role of Bilateral Anterior Cingulectomy in Unbearable-Persistent (Intractable) Pain Syndromes" (Figure 5). This clinical study was performed in two hospitals of the Dartmouth Faculty of Medicine. He became a neurosurgery professor in 1972. He served as the head of the Neurosurgery Department at Hacettepe University Faculty of Medicine for 29 years between 1967 and 1996. A microscope was used in surgery for the first time in 1968, the neurosurgery intensive care unit was established in 1969 and the number of beds has increased rapidly during his period. The Hacettepe Department of Neurosurgery has become the largest neurosurgical clinic in our country with 120 patient beds including 16 in intensive care within a short period. He raised 78 neurosurgery specialists during his ten-



Figure 2: Neurosurgery specialization diploma of Dr. Erbenği, 1961.

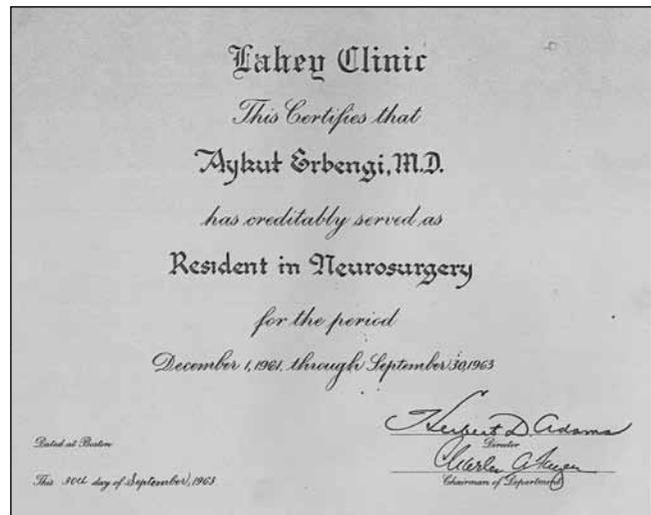


Figure 3: Certificate of his training at the Lahey Clinic.

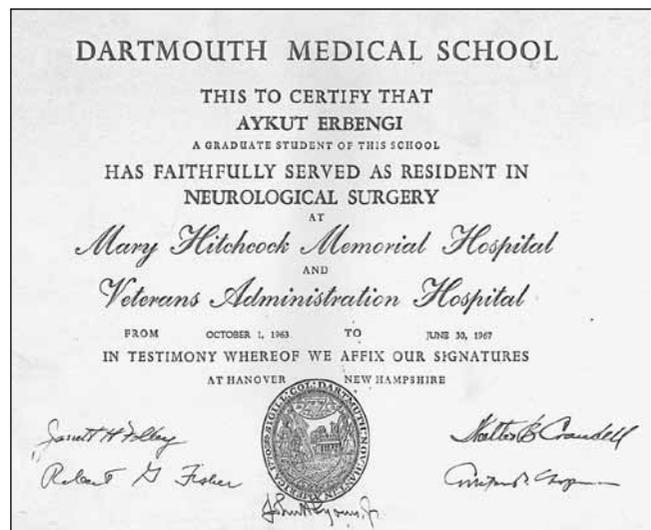


Figure 4: Certificate of his training at Dartmouth Medical Faculty.

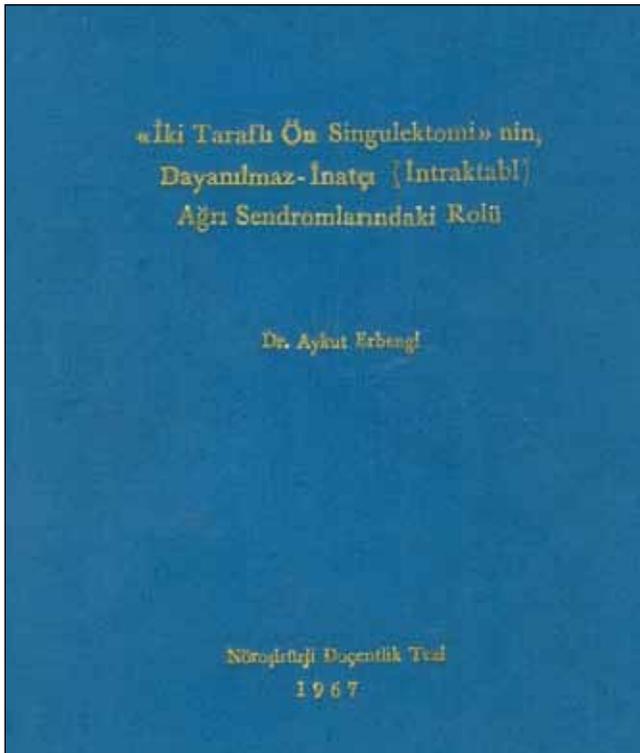


Figure 5: The cover of his Associate Professor thesis.

ure. Of these, 40 have served and are still serving as professor or associate professor at various universities.

Beside, he contributed to the establishment of the Institute of Neurological Sciences and Psychiatry and also served as its director between 1983 and 1992. He was the rector of the Ondokuz Mayıs University between 1980 and 1981, the Representative of Turkey at the European Association of Neurosurgical Societies (EANS) Education Commission between 1978 and 1991, and the Head of the Turkish Neurosurgery Society between 1986 and 1987.

PUBLICATIONS

The first international publication of Dr. Erbenği was published in the Journal of Neurosurgery in 1966 during his neurosurgery training in the USA (7). This case report with Dr. Sachs Jr presented the coating with methyl-2-cyanoacrylate of an MCA aneurysm that was not suitable for clipping and the autopsy findings of a patient who died three days later due to re-bleeding. His last publication, written with Dr. S. Naderi and published in Surgical Neurology in 2005, explained the history of neurosurgery in Turkey (5). He has a total of 78 international publications. Most of these were cited more than 50 times in the Web of Science. He is also the author of a large number of national and international papers and book chapters.

AWARDS

He received the Tiffany-Blake Research Award (Hanover-USA) in 1965 and 1966 and the İhsan Doğramacı award for "Highly

Successful Service" in 1984 and 1996. He was awarded with the "Outstanding Scientist" award of the Turkish Academy of Sciences (TUBA) in 2000, the "Highly Successful Service" award of TÜBİTAK in 2002 and the "Highly Successful Service" award of Turkish Neurosurgery Society again in the same year.

He served as a member of the Turkish Neurosurgery Society, Neuro-Psychiatric Association of Turkey, EANS, Middle East Neurological Society, Academia Eurasiana Neurochirurgica, European Society of Pediatric Neurosurgery, International Society of Pediatric Neurosurgery and Academia Pediatrica Neurochirurgica.

He retired on 5 November 1996. Our distinguished professor who has dedicated his life to neurosurgery died on 21 March 2013 when he was 84 years old.

HIS CONTRIBUTIONS TO NEUROSURGERY

Training Meetings: The allocation of one day a week to training meetings was started in his time. The discharge summaries of the patients discharged that week were reviewed, the patients that died were discussed in detail and interesting cases were presented for consultation at these meetings. The training meeting then continued with a joint Neurology-Neurosurgery meeting. The participation of neurology, radiology and pathology teaching staff played an important role in the increase of assistant training quality. The training meetings have been expanded (by adding the article conference of the week) and continue today.

Doctorate Program: He played a significant role in the foundation and development of the Hacettepe University Institute of Neurological Sciences. He served as the director of this institute until 1992 and argued that "a doctorate is required" to become a faculty member. The aim was to increase the academic quality of newly appointed faculty members. We comply strictly with this rule today. All teaching staff members working at Hacettepe Neurosurgery Department today have a PhD (4-year doctorate thesis).

Microneurosurgery: Dr. Erbenği, noticed that the basis of neurosurgery was microsurgery as he had used a microscope during his studies in USA (Figure 6) and for his Associate Professor thesis. Therefore, a "microsurgery research and training laboratory" necessary for microneurosurgery training was established and developed in his period. Today, there are five tables with 4 surgical dissection microscopes (Zeiss-Opmi 99), one surgical microscope (Zeiss-Opmi 6) and microsurgery tools in our laboratory. Our laboratory is also open for the use of other surgical departments.

Experimental Studies: Dr. Erbenği attached special importance to experimental studies. He was of the opinion that "Those who were specializing at the university should perform at least one experimental study". The aim here is to teach how an experimental study should be performed and to encourage those who considered becoming an academician in the future. Therefore, all the specialization theses in our department are still conducted as experimental studies



Figure 6: Dr. Erbenği at surgery during his training in the USA, 1966.

since his era. Dozens of international publications have been written from these thesis studies.

Advanced technology: Dr. Erbenği was quite far-sighted about the contribution of emerging technologies to neurosurgery. Many high-tech developments used in the investigation and surgery of patients were started to be used in our department first in our country and even before many countries worldwide. The surgical microscope (1968), Computed Cranial Tomography (March 1976), LASER (1986), ultrasonic aspirator (1986) and Intracranial Pressure Monitorization (1990) can be listed among these

He therefore enabled the establishment of a modern neurosurgery clinic, establishment of a system, and gradual improvement of the quality. He explained all these contributions he made to the young brain surgeons of our country in numerous congresses, symposia and conferences he participated in and illuminated them on these issues.

Finally, I would like to present my personal opinions and thoughts about my mentor, Dr. Erbenği. I first met him in 1984 when I started neurosurgery specialization. I worked together with him for 12 years until 1996 when he retired. I worked as head assistant, specialist and assistant professor in the same group with him in the last 6 years. It was difficult to work with him due to his thoroughness, the principles he never compromised and his discipline but it was extremely educational and tutorial. We learned most of the basic principles we implement in patient follow-up and surgery even today from him. Our close relationship continued after his retirement. He attended our training sessions from time to time. We continued to benefit from his knowledge and experience. Then he was hospitalized at our clinic for a long time due to his illness and died in our intensive care unit on March 21, 2013. I cannot put into words what a strange feeling it is for a doctor to follow up and treat his mentor during his illness.

Dr. Erbenği was a real university lecturer. He worked at the university during his entire professional life (1958-1996) and he did not consider going into private practice. According to him *"the place of a university lecturer is the university"* (Personal Interviews). He had a high degree of responsibility as being a university lecturer requires. He felt himself responsible to his patients, assistants and the department.

Dr. Erbenği was hard working. He worked day and night, even on holidays during his professional life. There has not been a single weekend or holiday he did not visit his patients. We all remember his word *"A brain surgeon has no holiday."*

He was wise. He followed the Journal of Neurosurgery and other publications he subscribed to from 1964 until his retirement. He shared what he read with others. He also encouraged them to read and write.

He considered surgery only when it was beneficial for the patients. He knew well which patient required surgery and which did not and told us the reasons. He gave importance to clinical-neurological symptoms rather than radiological findings and he told that *"a brain surgeon should know neurologic examination as good as a neurologist"* (Personal Interviews). He always emphasized preoperative evaluation and surgical planning. He saw the operating room literally as *"a sacred place"*. Therefore, there was complete silence during his surgery. He asked questions to the surgery team regarding anatomy and surgical technique and made explanations. He knew well when to continue and when to stop during surgery. He was very respectful to the tissue, patient during the surgery and meticulous about hemostasis. The important thing for him was *"not the duration of the surgery, but to avoid harming the patient"*. He was also extremely meticulous, even perfectionist, in postoperative patient care and follow-up.

He was always supportive to deserving residents and experts and provided guidance for the future. He encouraged specialists the increase their knowledge and experiences in the subareas of neurosurgery. His word *"the aneurysm is always number one in neurosurgery"* influenced my interest in neurovascular surgery.

Maybe not everyone felt close to him due to his seriousness, thoroughness, being disciplined and maybe a little bit hard, but he was respected by everyone. The participation of nearly all specialists he had trained to the retirement ceremony (Figure 7) it is a clear sign of their respect. Naming the class of our department after Dr. Erbenği with the decision of Academic Council and approval of the Senate of Hacettepe University after his death is also the symbolic expression of the respect we have for him.

I can easily say this in the 30th year of knowing Dr. Erbenği: *"I feel lucky that I worked with him for a long time, because I learned from him very much, both about neurosurgery and life..."*

Dr. Erbenği will continue to be remembered as "a real university lecturer" and "a guiding light" in the Turkish Neurosurgery Community.



Figure 7: Together with his students in his retirement ceremony, 5th November 1996.

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