

## In memoriam "Denton Arthur Cooley"

*"Denton Arthur Cooley" Hatırasına*

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Dr. Denton Arthur Cooley was born on 22 August 1920 in Houston, Texas and until 18 November 2016, the day he died, he devoted his life to his family and healing patients. His personality, his work discipline, led the center he established to be a leading institution in the world, and which led to the name of Cooley to be identified with heart surgery. He was born as the son of Ralph Clarkson Cooley and Mary Fraley as one of the famous Houston families. After his primary, secondary and high school education, he went to Texas University in Austin for his university education and became the first five unique players in the well-known and highly successful "Longhorns" basketball team across America. Cooley has always said that playing in a sports team is an important part of matured strong surgical personality. He completed medical education and surgery at Johns Hopkins School of Medicine, which was founded by Halstead, known as the father of the modern surgery. In the first year of his surgical internship (1944) he assisted Alfred Blalock in an operation made to a baby with pulmonary atresia, tetralogy of Fallot which was considered as the beginning of the modern cardiac surgery. In the second year of his internship, he made his military service in Austria at the end of the Second World War for three years. After his return from military service, he continued his education in Johns Hopkins Hospital. During his chief internship, he made the first aneurysm resection in a patient with a saccular thoracic aneurysm when Dr. Blalock was at a conference abroad. His name known with his surgical skills and his aneurysm experience drew the attention of Dr. DeBakey who was developing the surgical department of Baylor Medicine School in Houston. Dr. Cooley, accepting DeBakey's job offer, went to near Lord Brock for a year, who

was working at Brompton Hospital in London. After returning to Houston, from 1951 until 1969, he worked with Dr. DeBakey at the Baylor Medical School. In the early 1950s pulmonary heart machines were used only at certain clinics. One of them was at the University of Minnesota, where Walton Lillehei worked, and the other was at Mayo Clinic where Dr. Kirklin worked. Dr. Cooley had long wanted to perform open heart surgery using a pulmonary heart machine, and after a visit to two clinics in Minnesota, he decided on the machine being designed by Dr. Richard De Wall and used by Dr. Walton Lillehei and bought this heart lung bypass machine with his own money and brought it to Houston for the first time. Dr. Cooley's real fame started to spread from country to country around the world after this. Successful results were obtained from the open-heart surgery performed by the surgeon, who was called the handsome blonde boy in the south. He performed open-heart surgery between his heart lung machine behind her wagon car and by traveling Texas Children's Hospital and Jefferson Davis Hospital, successfully containing both open heart surgery at the level of congenital heart surgery and adult cardiac surgery. After Dr. Christian Barnard's successful first heart transplant on May 3, 1968, he performed 17 heart transplants in about six months.

Dr. DeBakey was appointed by the National Medical Council to make artificial heart and funded by the state for research. Dr. Domingo Liotta, working in Dr. DeBakey's laboratory, worked with engineers at Rice University to develop this machine. Dr. DeBakey believed that a device that would help the left ventricular function instead of the total artificial heart would be more successful and implemented a device for this

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purpose in a patient with mitral stenosis and valve replacement. Dr. Liotta attaches importance to total artificial heart and knew that such an action would not be implemented by Dr. DeBakey in a short time. Dr. Cooley began operations at St. Lukes Hospital opposite the famous Fannin street, although he was still a Baylor faculty member, and he founded the Texas Heart Institute. Dr. Liotta for use of the total heart device approached Dr. Cooley and Dr. Cooley accepted it. On April 4, 1969, a patient who was waiting for a heart transplant was the first to have an artificial heart device attached in the world. The patient Haskell Karp was alive with the artificial heart for two days and successfully transplanted the heart. This very important development has been a cause for controversy that will last for about 38 years between Dr. Cooley and Dr. DeBakey. But this controversy, Dr. Cooley's statement, created the world's foremost, largest, most respected medical center. Today, Texas Medical Center has become the world's most important, largest medical center with 54 medical institutes, 21 hospitals and two medicine faculties.

Although Dr. Cooley's contribution to congenital heart surgery and adult cardiac surgery was involved the literature in a very long list, he pointed out that the most important contribution he made to cardiac surgery was the method of hemodilution applied by heart lung machine. The reason is that these surgeries can be made much more easily by hemodilution method and more operations can be performed in a short time using this method. With this method, the number of annual surgical cases increased at the Texas Heart Institute, reaching a series of 100.000 cases in 2001. Again, this method has become a sick hope door that cannot get blood transfusion in terms of beliefs like Jehovah's Witnesses. When a patient with a long history of atrial switch surgery performed prior to the arterial switch operation developed a right ventricular systemic ventricular insufficiency, which is one of the long-term complications of atrial switch operations, Dr.Cooley's most important research and support was to install a mechanical circulatory support device for

the patient's ability to carry on and successfully transplant his/her life was a great testament to how well his vision and practices were in the 1960s. Criticism at that time, and the routine treatment of these structures, has led to many important people who can change history throughout history, not just Dr.Cooley.

Dr. Cooley's contribution to surgical education was also tremendous, through an international training program created with nearly 100 assistants he trained called "my hands" as well as, contributing to the education and experience of thousands of surgeons from all over the world including Turkey. When surgeons raised from this program returned to their own countries, they created heart surgery programs and hope for cardiac patients.

He added trust and joy to every environment he entered. Dr. Cooley had a very happy private life at the same time and had a very happy life with the chief of Halstead's service Louise Goldborough Thomas until four weeks before his death. He has 5 daughters, 16 grand children and 17 second generation grandchildren from this marriage. CNN's famous program producer Larry King, in an interview with Dr. Cooley, Larry King asked him that, "Dr. Cooley, I've married 7 times, you are still married to the same person for 60 years, what is the miracle behind it?" "Cooley replied, "Well Larry, I did not run her life and I did not run my life," which was witty but also thought-provoking.

Dr. Cooley, who is the doctor of the Kings and the Queens, said to Dr. Fraizer who came to talk to his latest office. "Bud, I am leaving now, can we talk tomorrow morning," and died on November 18, 2016, at the age of 96 while his entire family was around his bed. Doing many surgeries for the first time, Dr. Cooley brought perfection to the things he could not make with "modify, simplify and apply" philosophy and was a loved, respected figure who contributed to world history.

May him rest in peace.