

Pioneers in Cardiology



Christiaan Barnard

Christiaan Neethling Barnard performed the world's first human heart transplant.

He was born on 8th November 1922 in Beaufort West, South Africa, the son of a minister in the Dutch Reformed Church.

He studied medicine at the University of Cape Town Medical School, graduating in 1945. After doing his residency at the Groote Schuur Hospital he worked as a general practitioner in Ceres. After returning to Cape Town he worked at the Groote Schuur Hospital again and received a Master's degree in 1953. In the same year he also obtained his M.D. from the same university.

Obtaining a two-year scholarship to study in America he did a postgraduate training in cardiothoracic surgery at the University of Minnesota in 1956. Here he became acquainted with another cardiac legend, Norman Shumway. The latter was responsible for laying down a lot of spadework in the ensuing transplants. In 1958 Barnard obtained his Master of Science in Surgery and also was awarded the Doctor of Philosophy for his work on intestinal atresia.

He returned to South Africa in 1958 and was instrumental in setting up the first heart unit at the Groote Schuur Hospital. He was appointed Director of Surgical Research at the University of Cape Town. In 1961 he was appointed Head of Cardiothoracic Surgery at the University of Cape Town where he later on was elevated to the position of Associate Professor in Surgery. Due to his work in cardiac surgery, especially in Ebstein's anomaly and the Tetralogy of Fallot he was promoted to full Professorship in 1972. In 1984 he was appointed Professor Emeritus.

In 1967 he performed the first kidney transplant in South Africa. He had already been interested in the performance of heart transplants and had experimented on animals, nearly 50 dogs having had cardiac transplants. A lot of preliminary work was being done by Shumway.

The introduction of hypothermia in 1952 and the introduction of the heart-lung machine paved the way for the surgeon to operate on a heart that was still and free of blood.

The first heart transplant was done on 3rd December 1967 on Louis Washkansky, a grocer aged 54 years and who was suffering from gross cardiac failure. In this he was assisted by his brother Marius, also a surgeon. The donor heart was taken from a young woman who had met with an accident while crossing the road

and who had been declared brain dead. The transplant was successful but Washkansky died of pneumonia after 18 days, due to infection setting in after a lot of immunosuppressive drugs. Despite the death Barnard gained a lot of fame worldwide. In 1968 he performed the second transplant in a dentist, Philip Blaiberg who survived the operation for twenty months. Emulating Barnard, cardiac surgeons all over the world started doing cardiac transplants. In 1971 a patient of Barnard survived 23 years!!

After the discovery of cyclosporine the process of transplantation became easier and the operation was done more frequently.

In all he performed ten orthotopic transplants. In 1974 he performed a heterotopic transplant by removing the diseased part of the recipient heart and replacing it with the heart of a ten-year old child. The recipient died after four months.

For his achievements he became the equivalent of today's "Superstar" status. He revelled in the publicity and gave a lot of lectures. His talk in Mumbai was a resounding success. He had many affairs and became known as, "Doctor of Hearts". He was married thrice and had two children from each marriage.

He vehemently opposed apartheid and roundly criticised the government for the same. He campaigned to try and change the law. Later on, his brother Marius, who had helped him in the surgeries, was elected to the legislature and carried on an anti-apartheid campaign.

In his later years Barnard developed rheumatoid arthritis which hampered his surgical skills. He then turned to writing books on health and even novels. He wrote two autobiographies.

In 1983 he retired as Head of Cardiothoracic Surgery and spent two years as the Scientist-in-Residence in Oklahoma. After this he divided his time between Austria and South Africa. He founded the Christiaan Barnard Foundation in Austria which helps underprivileged children.

He died of an asthmatic attack on the 2nd September 2001 while holidaying in Cyprus. While giving an interview to Time Magazine a little before his death, he said, "The heart transplant wasn't such a big thing surgically. The point is I was prepared to take the risk. My philosophy is that the biggest risk in life is not to take the risk."

Contributed by
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