Christiaan Neethling Barnard (1922-2001)

Christiaan Neethling Barnard, who made medical history and was thrust into the international limelight almost instantly in 1967 after performing the first human heart transplant, died on September 2, 2001, in his hotel room while vacationing at the coastal resort of Paphos, Cyprus.

Barnard was born in the small town of Beaufort West on South Africa's Great Karroo plateau on November 8, 1922. His father, Adam Hendrik Barnard, was a Dutch Reformed minister. His mother, the former Maria Elizabeth de Sewart, played the church organ. Barnard was one of five boys. One of his brothers, Abraham, died at the age of 5 years of heart disease. This may have been the reason for Barnard's future walk in life. The family was by no means rich and the young Christiaan Barnard had a modest upbringing. He matriculated from the Beaufort West High School in 1940, and in 1946 he completed his bachelor of medicine and bachelor of surgery degrees (MB, ChB) at the University of Cape Town. Barnard served his internship at the Groote Schuur Hospital in Cape Town. In 1948, he married Aletta Louw and moved to the town of Ceres, in the Western Cape, where he served as a family physician. The Barnards had two children, Andre, who later committed suicide at 31 years of age, and Deirdre. The couple divorced in 1969. In 1951, Barnard returned to Groote Schuur Hospital to serve as the resident medical officer and registrar in the department of medicine. He continued to study in the evenings and received the degree of master of medicine followed by a doctor of medicine degree from the University of Cape Town in 1953. He then served as a registrar in the department of surgery under Professor J. Erasmus.

In 1956, Barnard received a scholarship for a 2-year study abroad. Leaving his small family behind, he traveled to the United States, where he studied general surgery with Owen H. Wangensteen at the University of Minnesota, then chose to train in cardiothoracic surgery under the tutelage of C. Walton Lillehei. He received a master of science in surgery degree in 1958 and in the same year was awarded a doctor of philosophy degree. Barnard returned to South Africa to work at Groote Schuur Hospital, this time as a specialist in cardiothoracic surgery. Three years after his return, he was appointed head of the department of cardiothoracic surgery and was promoted to the rank of associate professor. For the next few years, Barnard worked on conducting experimental heart surgery on animals in Cape Town, visiting transplant laboratories worldwide, and assembling a surgical team before he felt he was ready to undertake his new task.

On December 3, 1967, Barnard stunned the world when he led the surgical team that performed the first human-to-human heart transplant. The transplanted organ was sustained for 18 days with intense immunosuppression. Fiction had become scientific fact and the distinctions between life and death had become blurred and rearranged. The concept of human heart transplantation, conceived in the corridors of the laboratories of transplant pioneers such as Norman Shumway, Richard Lower, James Hardy, and Adrian Kantrowitz, became a reality and the seeds that were planted across the Atlantic gave birth in South Africa.

Christiaan Barnard became a household name and the unknown surgeon became an international superstar overnight. "On Saturday, I was a surgeon in South Africa,

very little known. On Monday I was world renowned," Barnard recalled on a weekend in 1967. He was celebrated around the world for his daring accomplishment. Handsome and only 45 years old at the time, he graced the covers of magazines, toured the world visiting dignitaries and heads of states, and became a popular figure even to the layman on the street. He enjoyed his fame quite well. "Any man who says he doesn't like applause and recognition is either a fool or a liar," Barnard once told an audience. "You learn from mistakes, but success gives you the courage to go on and do even more."

In 1970, Barnard married Barbara Zoellner, then 19 years old, and together they had two boys: Christiaan, Jr, and Frederick. Their marriage, too, ended after 12 years. During these years, Barnard developed an interest in writing. He wrote and edited several books on medicine and health and authored and coauthored several novels and articles in scholarly journals. He published his autobiography, *One Life*, in 1970 and followed it later with his memoirs in *The Second Life* (1993). His books sold worldwide and allowed him to generously donate his royalties to the Christiaan Barnard Foundation to support research on heart disease and transplantation. In 1972, he was promoted to professor of surgical science at the University of Cape Town.

Barnard continued to practice medicine till the age of 61. In 1983, he took an early retirement from his clinical practice, in part due to the painful rheumatoid arthritis that was

diagnosed when he was in Minneapolis. He spent 2 years in Oklahoma City as the scientist-in-residence at the Oklahoma Transplantation Institute of the Baptist Medical Center. He returned to South Africa in 1988 and remarried, this time to 23-year-old Karin Setzkorn, a beautiful young model, and together they had two children, Armin and Lara. That marriage also ended in divorce last year. In his later years, Barnard had skin cancer on his face and underwent painful laser procedures and skin grafts at a clinic in Parow (South Africa). More recently, he had been spending most of his time in Austria. His most recent book, *Fifty Ways to a Healthier Heart*, was published in May 2001.

Beside performing the first human heart transplant, Barnard is also credited with being the first to choose as heart donor a brain-dead accident victim. The Uniform Brain Death Act was passed in 1978, expanding for the first time the traditional definition of death. He is also credited with performing the first heterotopic piggy-back human heart transplants.

In the Outpatients Waiting Hall at Kings College Hospital, London, a mural designed by wallscapes artist Gary Droste was erected in 1996 and fills the arch in the barrel-vaulted ceiling. The mural depicts the story of the history of medical science from the days of trepanation of prehistoric skulls to modern times. On the mural stands a portrait of Christiaan Barnard as representative of those who strive for the advance of medicine.

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