Obituary

Dr. Joseph E. Murray



r. Joseph E. Murray, an extraordinary plastic surgeon, opened a new era of medicine with the first successful human organ transplant. He suffered a stroke at his suburban Boston home on Thanksgiving and passed away on 26 November 2012, at the Peter Bent Brigham Hospital (later Brigham and Women's Hospital) in Boston at the age of 93. It was in this same institution that he performed the first successful kidney transplant on 23 December 1954. The donor was an identical twin. Murray later wrote, "There was a collective hush in the operating room as blood began to flow into the implanted kidney and urine began to flow out of it. It was a moment I can never forget." For this great path-breaking achievement, he was awarded the Nobel Prize for medicine in 1990. It was his work that made other organ transplants possible. The Nobel citation read: "He has given the gift of life to hundreds of thousands of people destined to die young. His success did not come easily. How many people do we know try to achieve something that no one has ever before even attempted, because it was judged to be impossible? He kept trying; he kept failing, but still kept trying for a decade! His attempts were severely criticised by his peers. But he did not give up." He solved both the technical problems of the surgery and the unsurmountable problems of rejection, no doubt helped by other scientists.

Soft spoken and modest to the core, in his Nobel acceptance speech, he gave credit to men who preceded him and those who worked with him.

He said:-

"We all have been warmed by fires we did not build.



We all have drunk from wells we did not dig."

Dr. Murray did monumental work in other areas of plastic surgery, especially the treatment of burns and the correction of other complex facial deformities. But all this work which would have brought fame to lesser men was dwarfed by his work on organ transplant and its infinite possibilities in the future.

Murray was born to William A. and Mary (née DePasquale) Murray, and grew up in Milford, Massachusetts. He was of Irish and Italian descent. A star athlete at the Milford High School, he excelled in football, ice hockey and baseball. Upon graduation, Murray attended the College of the Holy Cross intending to play baseball; however, baseball practices and lab schedules conflicted, forcing him to give up the sport. He studied philosophy and English, earning a degree in humanities in 1940. Murray later attended Harvard Medical School. After graduating with his medical degree, Murray began his internship at the Peter Bent Brigham Hospital. During that time, he was inducted into the Medical Corps of the U.S. Army.

He served in the plastic surgery unit at Valley Forge General Hospital in Pennsylvania. It was here that he worked for an esteemed plastic surgeon, Dr. Bradford Cannon, and developed a life-long passion for plastic surgery. His unit cared for thousands of soldiers wounded on the battlefields of World War II, working to reconstruct their disfigured hands and faces. His interest in transplantation grew out of working with burn patients during his time in the army. Murray and his colleagues observed that the burn victims rejected temporary skin grafts from unrelated donors much more slowly than had been expected, suggesting the potential for organ grafts or transplants.

After his military service, Murray completed his general surgical residency and joined the surgical staff of the Peter Bent Brigham Hospital. He then went to New York to train in plastic surgery at New York and Memorial

Hospitals, returning to the Brigham as a member of the surgical staff in 1951.

In 2001, Murray published his autobiography, *Surgery of the Soul: Reflections on a Curious Career*.

Murray became an international leader in the study of transplantation biology, the use of immunosuppressive agents and studies on the mechanisms of rejection. In the 1960s, top scientists investigating immunosuppressive drugs sought to work with Murray. Together, they tailored the new drug Imuran for use in transplants. The discovery of Imuran and other anti-rejection drugs, such as azathioprine and prednisone, allowed Murray to carry out transplants from unrelated donors.

Besides Murray, the only plastic surgeon, there are nine other surgeons who received the Nobel Prize for medicine: Theodor Kocher in 1909 for his work on the thyroid; Allvar Gullstrand in 1911 for his outstanding work in ophthalmology; Alexis Carrel in 1912 for his pioneering work in vascular surgery; Robert Barany in 1914 for his research on the human vestibular system;

Frederick Banting, an orthopaedic surgeon, in 1923 for his isolation of insulin; Sir Alexander Fleming, in 1945, a qualified surgeon but never practiced surgery, became a bacteriologist and discovered Penicillin; Walter Hess, the originator of prefrontal lobotomy, in 1949; Werner Forssmann in 1956 for cardiac catheterisation (he was a urologist); Charles Huggins in 1966 for discovery of hormone therapy in cancer prostate. The fraternity of plastic surgeons devoted to the art of healing remembers them all with admiration bordering on veneration for their contribution to alleviating human suffering.

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