

Looking Back

The Heartbeat Heard Round the World

This fall marks the fortieth anniversary of the first human heart transplant. In 1967, four men stood on the cusp of making history by becoming the first to perform the operation; on December 3, South African surgeon Christiaan Barnard, the least likely of the four, beat out his much more experienced rivals.

American surgeons Richard Lower and Norman Shumway had pioneered a dog-to-dog heart transplant in 1959. Since then, they had practiced their technique on hundreds of dogs, with an excellent survival rate; Barnard had only performed the operation a few dozen times, and none of his dogs had lived for more than ten days. Meanwhile, Adrian Kantrowitz, another experienced American surgeon, had almost performed the first human heart transplant in 1966: the parents of an anencephalic baby offered his heart to another infant born with a congenital heart defect—but by the time Kantrowitz's team removed the donor's heart, it was no longer functional. Barnard, too, had once had a near miss; he had found a suitable donor but was stymied by South African attitudes on racial segregation—his hospital could not countenance mixing organs from white and black patients.

Finally, a call came in. Barnard's patient was Louis Washkansky, a 55-year-old grocer dying from diabetes and heart disease. When 25-year-old Denise Darvall was fatally injured by a car, her father offered her heart. "For a moment," Barnard later wrote of the operation, "the heart lay paralyzed, without any sign of life. We waited—it seemed like hours—until it slowly began to relax. Then it came, like a bolt of light. There was a sudden contraction of the atria, followed quickly by the ventricles in obedient response—then the atria, and again the ventricles. Little by little it began to roll with the lovely rhythm of life." In his new book *Every Second Counts*, writer Donald McRae recounts the post-operation interview: "How are you, Louis?" Barnard asked. 'Fine,' Washkansky said softly. 'I'm feeling okay.' 'Do you know what we've done?' 'You promised me a new heart.' 'You've got a new heart,' Barnard confirmed. Washkansky nodded and lifted his thumb."

Washkansky only lived for eighteen days; the immunosuppressive drugs given to prevent his body from rejecting the new heart left him susceptible to infection and he died of pneumonia on December 21, 1967. In the decades since, the technique has enormously improved. Today, there are 4,000 heart transplants every year worldwide (2,500 in the United States), and the great majority of patients now survive more than five years afterwards. For all the many complicated ethical issues human transplant surgeries raise—including questions relating to the definition of death, the distribution of vital organs, and the meaning of human embodiment—we must be deeply grateful for the thousands of patients whose lives have been prolonged by this novel take on the great gift of life.