

SAGA OF A BLACK SURGEON IN THE APARTHEID-ERA OF SOUTH AFRICA

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The world knows the achievements of Professor Christian Barnard - the first man to carry out the heart transplant using a heart from a deceased human donor; but how many of us have paid due honour to that talented self-taught surgeon who worked with Christian Barnard and trained generations of surgeons, in that apartheid-era of South Africa. I am talking about Hamilton Naki. In Christian Barnard's word "Hamilton Naki had better technical skills than I did"¹, Barnard also believed Naki as "one of the great researchers of all time in the field of heart transplants"². Naturally, when Barnard asked Naki to be part of the surgical team of the world's first successful heart transplant on Louis Washkansky, Naki gladly accepted the offer and became one of the key members of that team.

Hamilton was born in Ngcingwane, on 26th June 1926 in a small village near Centane which is located at south of Butterworth in the Eastern Cape Province. Being a member of very poor family he could not attend secondary school. After only 6 years of primary education, he moved to Cape Town with his friend, James. While there, he received a message that his family's donkeys and cows had succumbed to disease and decided, not to go back to his village but to search for an employment. He managed a job of gardener at the University of Cape Town Medical School. He was actually appointed to help in the garden – specifically to roll the grass tennis courts on the university grounds. It is really interesting history from here how his life took a dramatic turn and his remarkable surgical talent was discovered by Robert Goetz.

Robert Goetz was a brilliant German but considered as 'unreliable' by Wilhelm Frick, the Nazi Minister of the



Hamilton Naki

Interior. Accordingly his medical diploma was refused by Nazi government though he was adulated with *summa cum laude* in 1936. Goetz fled to Bern to meet Hans Bluntschli who was former Professor of Anatomy in Frankfurt and known to him. However, as a German citizen who was not Jewish, he was not allowed stay there beyond one year,

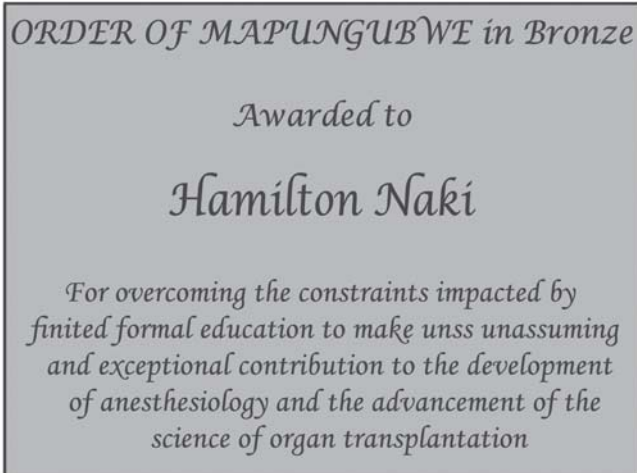
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so he came to Cape Town in 1938 as a postgraduate scholar to create a new research laboratory there from scratch. He worked closely with his wife, Verena, who was also a cardiovascular physician. The facilities of the laboratory were minimal and there was no animal house or provision for laboratory assistant due to financial crisis. Experiments were carried out in the fire- damaged, disused pharmacology laboratory; most of the equipment was homemade. In spite of such situations, Goetz established a vascular laboratory in 1940 and performing the first femoral arteriogram in 1942. He re-qualified himself in 1944 with the South African MBBS, which he promoted to Associate Professor of Surgical Research. Goetz's prime interests were the cause of hypertension. He was eager to know why giraffe does not succumb on bending down to drink. So he decided to investigate the vascular physiology of the giraffe. Thus it was that in 1954, he with his wife carried out the operation on giraffe. While doing so they needed a person to hold the animal. For a person who can hold the animal he came out from the laboratory and found Naki, who was working in the garden. Robert Goetz, asked him to step into the laboratory and hold the giraffe on which he was operating. He was so impressed with the devotion and manner of Naki's work that he invited him to work in the lab. Naki was first employed to hold the animals during anesthesia and to clean out their cages. Very soon Naki's keen interest and innate ability to relate to these complex procedures impressed Prof Goetz. As he needed an assistant to conduct animal experiments in the surgical laboratory he invited Hamilton to work in the laboratory. Naki's profound intelligence and memory became evident, and he gradually became an intrinsic part of the laboratory team of Goetz. He started performing a wide range of surgical procedures and providing all of the post-operative care. Under the regulations of the medical school

of South Africa at the time, he had to be given special permission to continue research work in the laboratories, owing to the official designation as a gardener. At that time he could perform a liver transplant in a pig virtually single handed and there was little that the surgeons could do that he couldn't. Amicable Naki always credited Goetz for all his success, who was his most important teacher. Actually Goetz, who had to flee from Nazi Germany, may have empathized with Naki's situation.

When Prof Goetz left for the United States, he introduced Naki with Dr Christian Barnard, who had returned to Cape Town after his study of open heart surgery in the United States. Gradually Barnard recognized Naki's abilities and used him firstly as an assistant, then as anesthetist for the animals, and finally, as principal surgical assistant in his laboratory. Barnard described him as having incredible dexterity and finesse and is quoted as saying "If Hamilton had had the opportunity to study he would probably have become a brilliant surgeon." Hamilton felt that the country required many skilled surgeons so he left Barnard's team in the 1970s and went on to contribute significantly in teaching and training young surgeons. He was working on developing and perfecting evolving transplant techniques. He became completely adept at multiple transplant methods. He was able to perform liver transplant almost single handedly and expert in the heterotypic or "piggyback" technique, anesthesia, and donor preparation. His meticulous stitching, his huge hands but gentle demeanor, and the amazing dexterity with which he would join tiny blood vessels amazed the students. Prof Rosemary Hickman, liver transplant surgeon who worked with Hamilton for more than 3 decades, reflected on his encyclopedic memory of anatomic names, recognition of anatomic anomalies, and his surgical skill. Moreover, she and others reminisced with great affection of his teaching of surgical and transplant techniques to scores of surgeons.

Most important time came to Hamilton in 1967 when 26 year old Denise Darvall was knocked down by a car on her way to buy a cake in Cape Town, South Africa, sustaining severe head injuries; she triggered an operation that made medical history. While she was considered brain dead when she reached hospital, her heart was healthy and kept pumping. Prof. Christian Barnard immediately decided to transfer her heart to Louis Washkansky a 57 year old serious heart patient. For this work he was looking for a highly skilled surgeon but get no alternative of Naki who was apartheid. Her body was placed in the hands of Hamilton Naki, who expertly removed her heart and gave it to Christian Barnard. He then transplanted it into Louis



Naki's Presidential Award



Naki Working with Bernard

Washkansky. A new history created in the field of medical science. When visitors flocked to see the man who had performed the world's first heart transplant, Naki kept in the shadows, and was obliged to describe himself as gardener and cleaner. At that time Naki's contribution was a criminal offence under the apartheid laws because he was black and the patient was white. Barnard, who vigorously opposed apartheid, spoke in Naki's praise whenever it was safe to do so, and entertained Naki at his home could have been prosecuted for allowing him into a whites-only operating theatre and for allowing him to touch a white patient. So Naki's contribution remained unsung since a long period.

Naki was a placid man lived in a tiny room in the quarter for migrant workers in Langa, a black township on the Cape flats. There was no electricity or running water in those quarters. Naki believed in personal hygiene and every morning he set out for work wearing a hat, suit, shirt, and tie, and with polished shoes. His family used to stay in the village, and he supported them on his wages and later his pension. He was such a miserable condition

that he could not afford to educate his own children to follow in his footsteps. He was highly punctual and strong believer of god. He Joined at the lab every morning at 6 am, carrying umbrella, newspaper, and Bible, and work until 4 30 pm. He spent his lunch break reading the Bible to the down-and-outs in the cemetery behind the medical school, and warning them of the evils of alcohol and cannabis. He was kindhearted person and has true love for his society. After his retirement he raised money to arrange a mobile clinic for his village, which was 50 miles from the nearest doctor or hospital. Every year he visited the surgeons who were his former trainees to raise money from them to maintain a rural school in the Eastern Cape.

During apartheid-era Naki remain unsung for the world. Later, he received due recognition he had long deserved and is now one of South Africa's heroes. Cape Town University, where he started his carrier as gardener; conferred an honorary MSc in surgery on him in 2002. In the year 2003 President Thabo Mbeki presented him South African's most prestigious "the order of Mapungubwe". Two years later, Naki conferred with "senior civil guard of honor," Hamilton Naki died in 2005 living his wife, Joyce, and four children.

"I stole with my eyes", Hamilton Naki famously said when asked how he learned his impressive surgical skills without any formal training³. Naki's life always reminds an open-minded student that if you are really inquisitive, you may become the country's future research leader in spite of all odds. □

Reference

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