

ORGANIZATION OF KIDNEY TRANSPLANTATION IN CHITTAGONG MEDICAL COLLEGE HOSPITAL

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The first successful kidney transplantation was done 55 years ago between twins on the 23rd December 1954 in the Peterbent hospital, Boston, USA. After 35 years of that memorable event the first successful kidney transplantation was done at BSMMU (IPGMR) in 1988. The pioneer of transplantation was Prof. A.P. Pandey, a simple but dedicated transplant surgeon who taught everybody of the team the basics of kidney transplantation just like a primary school teacher. Fortunately I was posted in the nephrology department of IPGMR and worked as a member of the first national kidney transplant team under the guidance of Prof. A.P. Pandey. Prof. Matiur Rahman, Prof. Harun-Ur- Rashid, Prof. M. A. Wahab and late Brigadier General Siraj Zinnat were the prime mover of the team.

20 years after that, 1st successful kidney transplant was done in CMCH, the only one amongst the peripheral medical college hospitals in Bangladesh.

It may be mentioned that the majority of the admissions in our hospital's nephrology unit are due to CRF and Chronic Glomerulonephritis (CGN) is its commonest cause (42%). Most CRF patients are poor. Patients suffering from CRF due to CGN are reportedly poorer compared to the patients suffering from CRF resulting from Diabetic Nephropathy. Though poorer, the CGN patients are relatively younger and physically fit. Most of them have suitable living kidney donors, especially mothers; however, they have no means to afford Kidney Transplantation (K.T.). To help these poor patients, I decided to organize K.T. in our government general hospital, where medical care is given free of cost.

I planned according to my experience at the BSMMU in 1988. One kidney transplantation team was formed in September 2007. But the first meeting of the team was not so successful. I did not call further meeting of the team. I went with determination to door to door of the persons whose participation was essential for the implementation of the transplantation program. The persons concerned ranged from Professors, hospital administrative staffs to sweepers. The whole program is divided into the following categories:

1. Training of nurses and doctors in the transplantation unit of Bangabandhu Sheikh Mujib Medical University, Dhaka (BSMMU)

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2. Arrangement to bring transplantation team from BSMMU
3. Procurement of transplant medicine
4. Procurement of transplant instruments
5. Preparation of O.T.
6. Selection and preparation of kidney donor and recipient

1. Three nurses and MD nephrology students were trained for 15 days in the transplantation unit of the BSMMU. The urologists had prior training at BSMMU. However one urologist and one anesthetist were sent to attend transplant surgery in BSMMU.

2. The VC of the Heads of the nephrology and urology departments of BSMMU were approached to bring the transplant team to CMCH. The transplant team gladly agreed to do first few transplantations in this hospital.

3. No well to do patients was expected to be the first case, so I appealed to our CMCH dialysis fund to provide expenses of transplantation medicine for three months for 1st two cases and it was granted.

4. The procurement of the operating instruments from Germany which costs 3 lac taka was sponsored by a company and the whole process was a lengthy procedure.

5. Preparation of O.T. was the hardest of all procedures. Two adjacent rooms in the O.T. were selected for K.T. & 2 Post-Operative rooms were divided in three sections as a measure of asepsis. The area was isolated from the rest of the general O.T. Cooperation of the heads of surgery, pediatric surgery, neurosurgery, orthopedic surgery, and hospital administration and PWD was note worthy. Brig. General A. K. M. Fariduzzaman played vital role.

6. After some difficulties in finding a suitable patient, we chose a young, male (19) patient suffering from ESRD due to CGN. His mother (37), having the same blood group, was selected as the donor. Both were investigated according to the standard donor and recipient preparation checklist. Both were negative for CMV. HLA typing and cytotoxic cross match were done in a laboratory in the capital. There was 50% match HLA-DR and cytotoxic cross- match was negative. The donor's renal angiogram was performed in our hospital's cardiology department which showed single renal artery in each kidney.

The whole process, from the start to the carrying out of the transplant, took strenuous 1½ years. Finally, the date for K.T. was fixed on 25-10-08. On that date, the transplantation was carried out by the K.T. team of BSMMU comprising of Prof. Golam Kibria, Prof. Anowar-ul-Islam, Prof. S. A. Khan, and Prof. Khurshid Alam, and Prof. M.A. Hai in collaboration with the Urology and Anesthesia team of CMCH.

Following the transplantation, the patient was not poly-uric for the first 2 days. Then urine volume started to increase but hardly exceeded 4l/day. Electrolytes were normal throughout. Creatinine level decreased gradually and became normal after 2 weeks. However, the patient developed fever due to collection at the site of the drain, which was promptly treated. But, he developed recurrent UTI following the removal of his ureteric stent for which he was treated with a prolonged course of antibiotic. He developed some perceptive deafness as side effect of drugs. So far, there had been no evidence of acute graft rejection.



First Transplant Donor Julekha Begum and Recipient Ali Abbas

His immunotherapy consisted of cyclosporine, mycophenolate-mofetil and prednisolon. Now, he is quite well, with a serum creatinine level of 1mg%.

Organization and management of the first renal transplant built a platform for future transplants to be carried out. Thus, we had done the 2nd transplant on 5-4-09 in a patient named Pranab Chakraborty. The donor was her mother Tulu Rani Chakraborty. But at the end 5 months he died of profuse gastro-intestinal bleeding and pneumonia due to cytomegalo virus infection with a functioning graft.

At this moment we have got the infrastructure of K.T. but we have to strengthen it. Moreover collaborative effort of nephrology, urology and anesthesiology is vital to continue the transplant program in this hospital. I hope these departments will work in collaboration with the help of government to continue this noble program.



Second Transplant Donor Tulu Rani Chakraborty and Recipient Pranab Chakraborty