CHALLENGES OF THE PIONEER RENAL TRANSPLANTS AT MOI TEACHING AND REFERRAL HOSPITAL, ELDORET, KENYA

BY DR. B.K.O. GANDA MB chB MMED (PAED)(NRB)
Chief specialist, Chairman Renal Unit, MTRH
Local Transplant Team Leader,
APPRECIATION AND RECOGNITION
ADMINISTRATIVE COMMITTEE

- Director – H.N. MENGECH Chairman
- DDCS – DR OMAR ALY Member
- DDFA – Member
- Chief Nurse – Member
- Finance Manager – Member
- Consultant I/C – Member
- Theatre and ICU
- Chief Pharmacist,
- Hospital Biomedical Engineer
- Transplant Team Leader – Chairman Renal Unit
APPRECIATION AND RECOGNITION: LOCAL TECHNICAL TEAM

- DR. B K. GANDA ------- Paediatr/Team leader
- DR. S. BWOBENGI ------Urologist/ lead surgeon
- DR. MUGALO ---Urologist
- DR. E. ASHRAF ------ Plastic surgeon
- DR T. SIMIYU --- Traumatologist
- DR. M. WAMBANI --- Lead anaesthetist
- DR. KITUYI W. ---Anaesthetist
- DR. OWINO ONGOR --- Physician
- DR. OWITI ----- Physician
- DR. V. KIPYEGON AND DR D. RONO – Pharmacists
- DR KIBET – PATHOLOGIST
- DR ABUYA -- Radiologist
- MR I. WANAKACHA --- Nurse Manager ICU
- Mrs Lucy Kenei – Nurse Manager Renal Unit
- Mr. S. Choge --- Nurse Manager Theatre
2.6.3 Appreciation and recognition: Indiana University Team

1. **Prof. MARK PESCOVITZ** – Team Leader
   - Kidney and liver transplant surgeon
   - Done >1000 kidney transplant to date
   - Immunologist
   - Vascular surgeon
2. **Prof. LEAPMAN** – transplant surgeon missed
3. **Prof. DAVID MATHEWS** – General surgeon, Brainchild behind the transplant in Eldoret
   - Solicited funds to build our 6 operation bed theatre.
4. **Prof. WAGNA** – anaesthetist surgeon
5. **DR STEPHEN SIMONS** – orthopaedic surgeon.
1. INTRODUCTION

1.1 HISTORY I - THEATRE

- ELDORET DIST HOSP BUILT IN 1926
- 1926- 1999. ONE OPERATION TABLE
- 2000- MAJALIWA THEATRE 4 TABLES; INTENSIVE CARE ROOM AS ICU
- INDIANA COMMUNITY
- 2007- 2 MORE OPERATION TABLES. INDIANA COMM.
HISTORY II - STAFF TRAINING/SERVICE INITIATION

- 1997/1998- ONE UROLOGIST TRAINED IN CAPE TOWN RSA
- 2002 - 2 PHYSICIANS, 2 PAEDIATRICIANS, ATTACHED AT KNH – 4 WEEKS
- 2002- SURGICAL TRAINING OF PD cath, SUBCLAVIAN cath CREATION OF Av FISTULA NRB AND MTRH
- 2002 - 2 NURSES - ONE YEAR TRAINING IN RENAL NURSING – KNH
  - 2 HD MACHINES PROCURED AND INSTALLED
- 2003 PD - (March) AND HD (August) STARTED
- 2003- ESTABLISHMENT OF THE RENAL UNIT
- 2004 - 2 MORE NURSES SENT FOR RENAL TRAINING AT KNH - 1YR.

JUNE 2006 - 2 KIDNEY TRANSPLANTS DONE ON 2 CONSECUTIVE DAYS.
1st Group of challenges: PRETRANSPLANT CHALLENGES

2.1 Overwhelming service need in the institution for kidney transplant. At one time 1/4 of patients undergoing HD at KNH came from Eldoret

2.2 Hospitals preparedness for the Transplant

2.3 Expensive pre-transplant investigations within and without the institution (MTRH, NRB, SA) - Kshs 110,000 for both recipient and donor

2.4 Patients’ ability to afford transplant and maintain post-surgery expenses for life.
Investigations I

Pathcare Labs NRB

- T Lymphocyte cross-matching
- CMV antibodies.
- HLA Typing,
Investigations II
(Nairobi /Mater Hospitals)

- Aortogram, selective renal angiography (Ksh 31,000/=)
- Echocardiogram (5,000/=)(Mater)
- Cyclosporin levels (post transplant) Ksh 4,000 per test trough and peak
Local Investigations III
MTRH

- Radiology – ultrasound scan of kidneys & abdomen viscera,. Doppler sonography of aorta and renal
- Ecg
- Laboratory : Stool o/c, urinalysis, haemogram, u/e, s/creatinine, PT, blood sugars, blood group, HIV Elisa, HbsAg, HCV antibodies, LFT, S/ca++
2nd group of challenges: EQUIPING UNITS IN READINESS FOR THE SURGERY

- Heavy sudden financial implications: investment for the future
- **PURCHASE OF NEW EQUIPMENT**—ventilators, monitors, to equip the new ICU
- Facelift to **RENAL UNIT, THEATRE & PWing**
- **PROCUREMENT OF DRUGS FOR PRE- INTRA- AND POST TRANSPLANT USE FOR ONE MONTH (KSH600,000)**
3rd group of challenges: Professional

- Local team consisted of general physicians and paediatricians with on the job training in nephrology and one month attachment at KNH
- No trained pathologists with renal bias
- Local surgeons could not carry out a renal transplant on their own
- No vascular surgeon on the local team.
- Many local team members had not participated in any transplant surgery before.
4th challenge: last minute hitch in the technical team-

- One transplant surgeon failed to fly to Kenya due to sudden illness etc
5th Challenge: Professional Nursing

- Nursing staff shortage 12 hr shift
- Intensive Nursing
- Intensive Infection control measures
6th Challenge: Early departure of Indiana team

- Indiana team left on 2nd and 3rd day post op.
- Great anxiety. Being a pioneer surgery, it had to succeed or the repercussions would be great.
7th Challenge: Maintenance:

- Financial burden on patient and hosp. 1st three months Ksh 360,000 on drugs there after about Ksh 80,000 pm
8th Challenge: Training of staff

- Nephrologists
- Transplant surgeons
- Other team members

Limitations

- Finance
- Sponsorship
- Age
- Interest
9th Challenge: what next?

Way forward?

- Renal services too expensive to be left to the family alone. National problem
- Involve all team players. Policies to sustain renal services. MTRH addressing the issue seriously
- ? Direct procurement from cheaper nations?
- ? Efficacious generics
- ? Hospital support fund.
- ? NHIF involvement
BENEFITS: PATIENT / DOCTOR

1. Recipients
   - Improved quality of life.

2. Educational
   - Learning experience for the locals.
   - Motivate locals to take interest in transplant surgery and nephrology
3. Accelerated general development in some units in the hospital

- ICU – Accelerated equipping and opening of ICU - 6 new ventilators 6 new modern cardiac monitors, BGA machines

- Renal Unit – Accelerated procurement of 2 more HD machines, renal biopsy set together with modern renal ultrasound.
BENEFITS: Laboratory/ Cardiac

- Need to equip lab e.g. purchase machine to analyze drug levels in the blood e.g. cyclosporine became apparent
- Cardiac Unit – under construction

Accelerated establishment of other specialized units such as cardiac unit
5. Created Awareness and confidence in the hospital

- More patients asking for the service but finance is the limiting factor.
- Something needs to be done!
- Improved the ranking of the hospital –
- The rapid progression from a simple renal unit with 2 HD machines to kidney transplant in 3 years applauded locally and internationally.
CONCLUSION

The success of these surgeries have demonstrated:

1. Complicated surgeries can be successfully carried out in young centres.

2. Government intervention required to make renal transplants accessible to wananchi. Favourable policies.
Involve all stakeholders: The hospital, the Ministry of Health, NHIF to develop policies which will support and sustain renal services in this country.
THANK YOU