

## HISTORY OF ORTHOPAEDICS IN KENYA

### INTRODUCTION

The growth of orthopaedic surgery in Kenya has been gradual. Like in many other parts of the world, e.g. Ancient Egypt and Greece, our forefathers treated fractures by application of splints from wood, bamboo and other items. They also reduced common dislocations by pulling them into position. Amputations of useless and/or dangerous limbs were carried out crudely without anaesthesia. Unfortunately, the rate of complications was high due to poor techniques and aftercare.

With time, it became clear that for successful orthopaedic and trauma practice, it is necessary to have three main components, namely:

1. Good physical facilities
2. Competent personnel
3. Good equipment

These components have evolved gradually over a period of time.

### ESTABLISHMENT OF HOSPITALS IN KENYA

Hospitals and many other medical facilities were established either by the government, missionaries, private or community groups.

#### **Kenyatta National Hospital & Kabete Orthopaedic Unit**

Present day Kenyatta National Hospital was established in 1901 as the Native Civil Hospital. It became King George V I in 1952 and at independence in 1963 it was renamed Kenyatta National Hospital. It became a state corporation in 1987. It is the largest referral and teaching hospital in the country.

The British Military Hospital in Kabete was taken over as the Orthopaedic Unit. Cold orthopaedic patients were managed there while trauma and acute cases were treated at Kenyatta National Hospital. After the construction of the present Kenyatta National Hospital, the Orthopaedic Unit was moved to Kenyatta National Hospital and Kabete Unit was handed back to the military. In the late 1970s there was a serious debate regarding establishment of an orthopaedic hospital to be built at Kabete since a military hospital had already been built at Mbagathi. Unfortunately, this idea was opposed by the administration of the day of Kenyatta National Hospital because they wanted all departments under one roof. Thus, we lost an opportunity to establish a hospital purely for orthopaedic and trauma surgery.

### Other hospitals

Many other government hospitals were established in provincial and district centres. For example, Coast Province General Hospital was established in Mombasa in 1908 as a Native Civil Hospital and was renamed Coast Province General Hospital in 1958. Establishment of mission, community and private hospitals was not left behind.

For example, The Mombasa Hospital (private) was established as The English Hospital in 1821. In 1921, the name changed to European Hospital and in 1980 it became The Mombasa Hospital. The Nairobi Hospital was originally built as a European Hospital. The Kenya Hospital Association which was entirely European was formed in 1950. The Nairobi Hospital was opened on 9<sup>th</sup> April 1954. Examples of other community hospitals, are M.P Shah, Pandya Memorial and the Aga Khan Hospitals. Most of the mission hospitals were established by churches like the Catholic, Anglican, Friends (Quakers), PCEA, AIC, Church of God and other religious organizations. Examples of hospitals built by these churches are Mukumu, St Lukes Kaloleni, Kaimosi, Kikuyu, Kijabe, and Mwhila respectively. Community hospitals were mainly European and Asian.

### THE EMERGENCE ORTHOPAEDIC SPECIALISTS

#### **Prof. William H. Kirkaldy-Willis (1914-2006)**



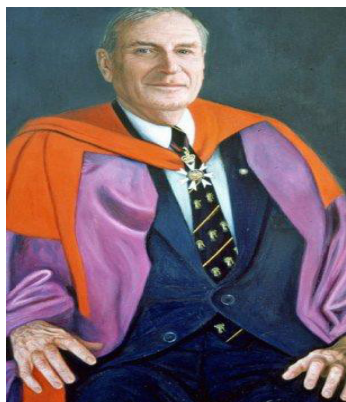
Prof. Kirkaldy-Willis was a native of Kingston, Kent England. He initially worked in Kenya at St. Luke's Mission Hospital Kaloleni, Coast Province. After the 2<sup>nd</sup> World war in 1944 he moved to Nairobi to join Dr. Cliff Braimbridge who was the senior government surgeon. The two were instrumental in the establishment of the Association of Surgeons of East Africa (ASEA) with Dr. Cliff Braimbridge becoming its first President. Prof. Kirkaldy-Willis was the President of ASEA from 1959 to 1960.

Prof. Kirkaldy-Willis established 120 orthopaedic beds ward at KNH and did some work on tuberculosis of the spine and polio deformities. He left Kenya at independence and became Professor of Orthopaedics at the University of Saskatoon Canada. He authored the book *“The Management of Low Back Pain”*. In his career, he published 71 articles. He died in 2006 at the age of 93 years.

#### Mr. Rowland Alexander Mc Vicker

The late Mr. McVicker came from Northern Ireland where he had graduated in Belfast in 1939 and got his FRCS Edinburgh in 1948. In the 1950s, he came to Mombasa where, apart from private practice, he did a lot of work for the Association for the Physically Disabled of Kenya (APDK) for which he was awarded MBE. I had the pleasure of working with him at the APDK from 1977. We worked together for 25 years at the APDK Port Reitz Mombasa as honorary orthopaedic consultants. Mr. Mc Vicker died in Mombasa in 2000.

#### Prof. Ronald Lawrie Huckstep



Prof. Ronald Huckstep was born in England on 22<sup>nd</sup> July, 1926. He worked in Kenya as an orthopaedic surgeon between 1954 and 1955. He then moved to Uganda and became the founding Professor of Orthopaedics at Makerere University in Kampala. He did a lot of work on post-polio deformities and trauma and wrote his well known book: *Poliomyelitis*. His simple books on polio deformities and trauma greatly benefited our East Africa region. For example his article *“Orthopaedic Problems in East Africa”* reprinted from *“Journal of the Royal College of Surgeons of Edinburgh”* Vol. 11, pages 206-223, April 1966 makes an interesting reading. Huckstep became Professor of Orthopaedic & Trauma Surgery at the University of New South Wales, Sydney Australia in 1972.

#### Dr. Micah Majale



Dr. Majale is undoubtedly regarded as the father figure of orthopaedics in Kenya and in the East Africa Region in general. He is the one who established the Orthopaedic Unit at Kabete and Kenyatta National Hospital. Orthopaedic patients came to him from many parts of East Africa.

Dr. Majale graduated from Makerere University of East Africa in 1953 and did his Internship at King George VI Hospital. He then went to France where he specialized in Orthopaedics. He worked at Kenyatta National Hospital until his death in April 1978. I was privileged to work under him in 1967 as an Intern and between 1970 and 1972 as a senior house officer. Under Dr. Majale's guidance, there were weekly grand rounds attended by all Nairobi Orthopods and other doctors. They included Shamshudin Suleiman, Bill Brodie, John Church, and from private practice: John Beecher and David Stuart. Ashraf Sheikh joined later. Joab Bodo joined the orthopaedic unit in 1973.

There were also weekly surgical meetings held at Kenyatta National Hospital on Thursdays and attended by most surgeons in Nairobi. These were informative, interesting and popular. After Dr. Majale's death in 1978, Mr. Suleiman took over as head of the department. Thereafter, he was appointed Professor of Orthopaedics at the Aga Khan University in Pakistan. Mr. Joab Bodo took over from Mr. Suleiman as Chief Orthopaedic Specialist at Kenyatta Hospital until he retired from Government in 1991.

#### ORTHOPAEDIC EQUIPMENT AND PATIENT MANAGEMENT

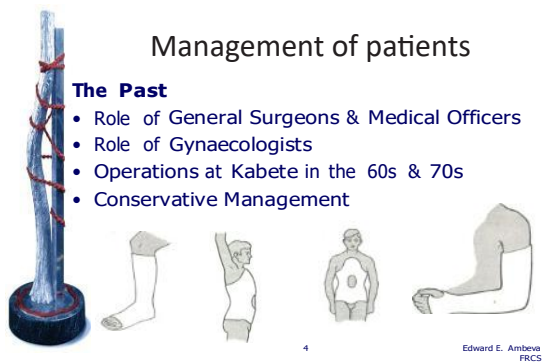
For a long time there were shortages of basic hospital facilities like water, electricity and operating theatres. Orthopaedic patients were initially managed by general practitioners (medical officers) and general surgeons. Interestingly, female orthopaedic patients were treated by gynaecologists. Unfortunately nothing was being done to patients with post-polio deformities and spine problems.

**Traditional bone setters**

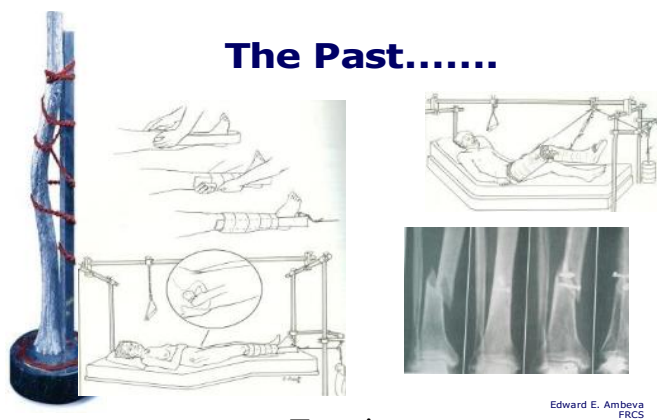


In the past, a good number of patients visited traditional bone setters who used splints from split bamboo or strips of wood tightly bound around the limb and occasionally including local joints. Some resulted in malunion, non-union, Volkmann’s contractures and even gangrene due to tight splints. Fortunately, this practice is dying out and traditional bone setters are now endangered species.

**Conservative management of fractures**



POP cast application



Traction

In centres without adequate facilities, fractures were managed by manipulation and POP cast application or skin/skeletal traction for several months in the hospital ward. This type of management is still practiced in many centres.

**Operative treatment**

Over the years, we have witnessed improvement of orthopaedic equipment and techniques. We have

moved from K’ Nails of the world war to Interlocking Nails and from ordinary Sharmans plates and screws to special locking plates and screws. In the past, for joint pathology like osteoarthritis, we performed either excision arthroplasty like Girdlestone Pseudoarthrosis for the hip or arthrodesis (joint fusion) like compression arthrodesis for the knee. Today, joint replacement with special implants is routine especially for hip and knee. Imaging in theatre, diagnostic and operative arthroscopy are major milestones in orthopaedic and trauma practice. We have come a long way.

**ESTABLISHMENT OF ORTHOPAEDIC DEPARTMENT**

**Prof. Lloyd Griffiths**



The Department of Orthopaedic Surgery was established in 1972. It was in this same year that the first group of University of Nairobi medical undergraduates sat their final examinations and graduated. Initially the orthopaedic department had Mr. John Church (who advocated use of maggots in treatment of septic wounds) and Dr. Jeshrani as lecturers. Lloyd Griffiths acted as a visiting Professor but declined to take up the position when it was advertised because he was busy with World Orthopaedic Concern. An Italian Urological Surgeon Alberto Benchivenga was appointed Professor of Orthopaedics in 1973. He popularized the AO Techniques. Prof. B.S. Mbindyo became the first Kenyan African to head the Department of Orthopaedics in 1983. Others who followed were Prof. J.A.O. Mulimba, Prof. J.E.O. Ating’a and Prof. L.N. Gakuu. Currently, there is a good number of orthopaedic surgeons at Kenyatta National Hospital and Moi Teaching & Referral Hospital, Eldoret.

In Mombasa in the past, we had Mr. E.E Ambeva who is still there, the late Mr. McVicker and the late Mr. Brahmbatt. Currently, the number of doctors practicing Trauma and Orthopaedics plus/minus General Surgery has increased to about eight. There is still a big national imbalance of orthopaedic surgeons. Most of them are located in and around Nairobi- a city glut vs rural scarcity.

**ORTHOPAEDIC TRAINING**

Apart from Dr. Majale who trained in France, most of the old orthopaedic surgeons trained in the United Kingdom, most of the centres being Oswestry,



Edinburgh and Liverpool. Majority of the younger orthopods have trained in South Africa and India. Nevertheless, there are several other centres that offer higher surgical training in orthopaedics.

### **M.Med Programme**

Among the SHOs who started the M.Med post-graduate programme in 1970 were Michael Mbalu and Edward Ambeva. At that time, the aim of our expatriate seniors was to train the local surgeons as “District Surgeons” to work in the district hospitals only. Their plan was to reserve Kenyatta National Hospital for their compatriots (Registrars from the UK) for their training and practical experience. We the local doctors protested and the programme stalled for a while. In 1972, Mbalu went to Glasgow and Ambeva went to Edinburgh on a Commonwealth scholarship for post-graduate training in surgery leading to FRCS. Meanwhile the M.Med Programme was reviewed and made equivalent to other international post-graduate degrees. Most of our current surgical colleagues have gone through this programme. COSECSA and SICOT now offer higher surgical training plus the relevant exams.

### **PAST MEETINGS AND CONFERENCES**

The 1<sup>st</sup> and 2<sup>nd</sup> East African Course in Advanced Bone Surgery were held in Nairobi from 30<sup>th</sup> January to 2<sup>nd</sup> February, 1978 and from 25<sup>th</sup> to 27<sup>th</sup> February 1980 respectively. They were organized by the University of Nairobi, Department of Orthopaedic Surgery and AO-International. In 1987 the Association of Surgeons of East Africa (ASEA) and the Royal College of Surgeons of Edinburgh held a joint conference in Nairobi, Kenya. The 50<sup>th</sup> Anniversary of ASEA and the 3<sup>rd</sup> General Assembly of Pan Africa Association Conference

was held at Grand Regency in Nairobi Kenya from November 29<sup>th</sup> to December 4<sup>th</sup> 1999. Meetings of COSECSA and ASEA are now held jointly. The 1998 International Committee Meeting of SICOT and the 1<sup>st</sup> Scientific Conference of Orthopaedic Surgeons under the auspices of the SICOT Chapter Kenya was held in Nairobi Kenya from 8<sup>th</sup> to 12<sup>th</sup> September, 1998.

There was a lively symposium on Road Traffic Accidents which was attended by the late President Daniel Arap Moi. This led to the establishment of a National Road Traffic Accident Authority. The East, Central and Southern Africa Orthopaedic Association (ECSAOA) held its Regional Meeting at White Sands Hotel Mombasa Kenya on the 21<sup>st</sup> and 22<sup>nd</sup> October 2010.

### **FOUNDATION OF THE KENYA ORTHOPAEDIC ASSOCIATION**

In 1983, the late John Beecher floated the idea of formation of Kenya Orthopaedic Association. The conception was not realized because the orthopods were very few at that time. Much later, Orthopaedic & Trauma Club was formed in Nairobi. This was the precursor of the Kenya Orthopaedic Association which held its first Annual General Meeting on 23<sup>rd</sup> March, 2006 at Panafric Hotel in Nairobi with Prof. L.N Gakuu, as the founder Chairman. Subsequent Chairmen were Prof. J.A.O. Mulimba, 2008-2010 and Dr. Fred Otsyeno 2010-2012. The combined meeting of the 10<sup>th</sup> African Society of Orthopaedics (SAFO) and the 7<sup>th</sup> Annual Scientific Conference/8<sup>th</sup> AGM of the Kenya Orthopaedic Association (KOA) held from 3<sup>rd</sup> to 5<sup>th</sup> July, 2013 was a big milestone.

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