Division of General Surgery, University of Cape Town

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Introduction

The Medical School at the University of Cape Town is the oldest of eight medical schools in the country. The Division of General Surgery forms part of the Department of Surgery in the Faculty of Health Sciences. The Medical School campus is situated about one kilometre from the main university campus and is adjacent to Groote Schuur Hospital, which is the main teaching hospital.

History

The history of the University of Cape Town Medical School has been extensively documented by Professor Janie Louw in his book In the Shadow of Table Mountain. The Medical School was founded in 1912 as part of the South African College. In the early days only pre-clinical subjects were offered and students travelled overseas, mainly to London, Dublin, Edinburgh and Liverpool, to complete their clinical training.

The inauguration of the University of Cape Town took place in 1918 and a proper Faculty of Medicine was constituted. The clinical departments were established in 1920 with appointments of Chairs in Surgery, Medicine and Obstetrics and Gynaecology.

In March 1920 Professor Charles F. M. Saint arrived from Durham and assumed duty as the first Professor of Surgery at the University of Cape Town. Much has been written and said about Charles Saint. He was a great teacher and a master surgeon, and an inspiration to his colleagues and students. Many great surgeons have trained under Charles Saint, including six of his protégés who became Chairs of Surgery in this country. He retired in 1946 after 27 years of service to the University.

Dr Marcus Cole Roux, the first local MB ChB graduate to be appointed to a chair, became Professor of Surgery in 1947. His tenure was cut short after serious illness forced him to resign from the post in 1948.

In 1949 the University Council converted the Chair of Surgery to a full-time post which was jointly funded by the Cape Hospital Board. Dr J. F. P. Erasmus was appointed to the Chair of Surgery in 1950 and occupied the post until 1955 when he was appointed Chief of Neurosurgery at the University of Pretoria.

He was succeeded in July 1955 by Professor J. H. Louw. Professor Louw was also a great scholar, a great teacher and a master surgeon, and ran the Department with an iron fist. Professor Louw achieved a great deal and was richly rewarded for his contributions to surgery. He held honorary fellowships in all the English-speaking Colleges of Surgeons, was awarded honorary doctoral degrees from several academic institutions, and received several awards for his work. He published widely in all aspects of surgery, but his passion was paediatric surgery. Professor Louw dedicated his life to the Department of Surgery and he occupied the Chair with distinction for 25 years.

Professor John Terblanche was appointed to the Chair of Surgery at the University of Cape Town in 1981. The Department continued to flourish under his leadership and its reputation in the international arena was greatly enhanced. His particular area of interest was hepatobiliary surgery and he is well known for his studies in portal hypertension and the management of oesophageal varices, the blood supply to the bile duct and its surgical implications, tube drainage for hilar bile duct cancer, experimental liver transplantation, and liver regeneration. Professor Terblanche has received honorary fellowships from all the major Colleges of Surgeons and honorary doctoral degrees from many universities, and has been a significant office bearer in many distinguished national and international societies. Professor Terblanche retired in 2000.

In addition to the above, a host of outstanding surgeons worked in the Department as full- or part-time consultants over the years, providing the best quality of care for the patients and excellent teaching for undergraduate and postgraduate students. Many of these were prominent surgeons who influenced surgery significantly, not only locally but nationally as well. Space does not allow one to name them all.

Clinical

The Division of General Surgery in the Faculty of Health Sciences at the University of Cape Town consists of the four surgical firms (the Hepato-Pancreatico-Biliary Firm, Surgical Oncology/Endocrine Firm, Vascular Firm, and Colorectal Firm), the Trauma Unit, the Surgical Intensive Care Unit, the Surgical Gastroenterology Clinic, and the Organ Transplant Unit.

Professors Flip Borrmann and Jake Krige provide a world-class hepato-pancreatico-biliary (HPB) service. The Unit is a regional and national referral centre for complex HPB problems and is internationally renowned for its contributions in the field. Special areas of interest and expertise include the management of portal hypertension, pancreatic surgery (acute and chronic pancreatitis and pancreatic cancer), liver resection, biliary surgery, and laparoscopic surgery. Professor John Terblanche was responsible for establishing the HPB Unit which has trained numerous international and local fellows.

The Surgical Oncology/Endocrine Firm, previously run by Professor David Dent, is currently headed by Dr Eugenio Panieri. The firm provides an excellent comprehensive breast cancer service and has made important contributions in the treatment of gastric cancer. There is also a vast expe-
ience and expertise in all forms of endocrine surgery. Current areas of interest include sentinel node biopsy for breast cancer, laparoscopic adrenal surgery, and the management of corrosive oesophageal injuries.

The Colorectal Unit, under Professor Paul Goldberg, is a regional and national referral centre for complex colorectal cancer surgery, inflammatory bowel disease, pouch surgery, and complex perianal disease. Important studies on the genetics of colorectal cancer are in progress.

Dr Nad Naidoo has recently taken over as Head of Vascular Surgery. The Unit performs all aspects of conventional vascular surgery and is supported by an active vascular laboratory. Vascular surgery has changed significantly in recent years and Dr Naidoo is in the process of introducing the non-invasive techniques and procedures of vascular surgery to the service.

The Trauma Unit remains one of the busiest areas in General Surgery. Drs Andy Nicol and Pradeep Narsaria run this level-one trauma service which continues to attract visitors from all over the world. The Unit treats approximately 1 000 injured patients each month, including a large number of patients with serious gunshot injuries, and motor vehicle accident victims. Years of experience and well-established protocols ensure excellent quality of care.

An integral part of the surgical service is the Surgical Intensive Care Unit (ICU). Professor Lance Michell is the Director of the Surgical Intensive Care services, providing care for both trauma and emergency surgical admissions, as well as complex elective postoperative cases. The Unit now also encompasses the cardiothoracic ICU, and is involved in the postoperative care of heart and liver transplant patients.

The Organ Transplant Unit is one of the busiest in the country. The emphasis is on teamwork, with close collaboration between surgeons and physicians. It has one of the largest renal transplant programmes and until recently provided the only liver transplant service in the country. The Unit performs approximately 10-15 liver transplants and about 70 kidney transplants each year.

Groote Schuur Hospital is the main teaching hospital attached to the Medical School. The original Groote Schuur Hospital was built in 1938 and, situated at the base of Devil's Peak, it remains a landmark for those entering the city. The new hospital was commissioned in 1988 with 1 200 beds. However, currently only 900 beds are being utilised. The Division of General Surgery has 60 general surgical beds, 50 trauma beds, 12 ICU beds and 7 high-care beds in the transplant unit.

The Division is also actively involved in the three regional hospitals. Somerset and Victoria hospitals provide second-level elective and emergency surgery, while G. F. Jooste Hospital is involved in emergency surgery and trauma. These hospitals are staffed by full-time and part-time specialist surgeons, as well as senior medical officers. The Somerset and G. F. Jooste hospitals are part of the surgical registrar rotation and the undergraduate medical students are taught at all three hospitals. There is a separate Division of Paediatric Surgery at Red Cross War Memorial Children's Hospital.

Research

In the 1930s Professor Robert Goetz was recruited by Professor Charles Saint to establish surgical research in the Department of Surgery. From humble beginnings and with a small research grant, he established a world-renowned research laboratory that was responsible for several important discoveries, particularly in the field of vascular surgery.

In the period following the departure of Professor Goetz in 1958, Professor Christian Barnard undertook his research in transplantation in preparation for the first human heart transplant in 1967.

Professor John Terblanche worked in the laboratory with
Hamilton Naki was one of the interesting characters in the J. S. Marais Laboratory. Hamilton was originally employed to work in the gardens of the University of Cape Town. He was recruited by Professor Robert Goetz when the latter established the surgical research laboratory. Hamilton was a quick learner with much natural ability. He soon mastered the surgical procedures in the laboratory, including heart, renal and liver transplantation, and was a competent large-animal anaesthetist.

The Department also has an active microsurgery laboratory under the directorship of Gert Engelbrecht. Several established surgical models are available in the laboratory and include heterotopic heart transplantation, renal transplantation, liver transplantation, portacaval shunt and portacaval transplantation in rats and mice.

Professor Anwar Mall is the senior scientist in the laboratory and the current Director of Surgical Research. Professor Mall is a world leader in mucin research with special interests in changes in mucins in peptic ulcer disease, colon cancer, bile duct cancer, and pancreatic cancer.

Postgraduate training

The registrars in General Surgery benefit from both the input of the excellent teachers in the Department and access to the enormous amount of clinical material at both the teaching hospital and the secondary hospitals.

There is a structured surgical rotation, with the registrars spending 3-month blocks in the various units and units. The registrars spend the first year of their rotation in the Trauma Unit, Surgical Intensive Care Unit and Paediatric Casualty. During the second year the registrars acquire their general surgical skills in the Trauma Unit (cutting), at Somerset Hospital (elective second-level surgery) and at G. F. Jooste Hospital (emergency second-level surgery). The final 2 years of the training are undertaken at Groote Schuur Hospital in the surgical units (hepatobiliary surgery, surgical oncology, colorectal surgery, and vascular surgery) and in paediatric surgery at Red Cross Children’s Hospital.

The registrars write the primary, intermediate and final Fellowship examinations of the College of Surgeons of South Africa. After completing the final F.C.S. examination, the registrars spend two or three 1-year stints attached to one of the surgical units of the Trauma Unit as a junior consultant.

A strong emphasis is placed on research in the Department, and the registrars are encouraged to produce a dissertation during their junior consultant years which they can submit to the University for an M.Med. degree. The registrars are also given the opportunity to present their research at local and international meetings.

Undergraduate teaching

The Department prides itself on its teaching to the medical students. General surgery is taught in the 5th and 6th years in the form of lectures, clinical demonstrations and tutorials. The students are also very involved in the daily routine activities of the surgical units both in the wards and in theatre, especially the final-year students, who function as student interns.

REFERENCES

1. Leysun JH. In the Shadow of Table Mountain: A History of the University of Cape Town Medical School. Cape Town, Struik, 1969.


