

FROM THE PAST

HISTORY OF ANAESTHESIA IN GHANA (1): HUMAN RESOURCE DEVELOPMENT IN ANAESTHESIA

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Summary

The history of medicine in Ghana has been documented but there has not been any documentation of the history of anaesthesia in the country. Anaesthesia in Ghana has seen a number of changes in the last fifty to sixty years. These changes have been seen in the areas of anaesthetic drugs, anaesthetic techniques, the training of anaesthetic manpower and introduction of intensive care facilities. There has been the introduction of new and modern anaesthetic machines and monitors which were

completely absent some decades ago. This article seeks to highlight some of the major changes that have taken place in the specialty. The challenges facing the specialty in terms of the supply of consumables, the lack of maintenance of equipment and the low numbers of enrolment into the specialty by physicians are discussed. International collaborations, the setting up of new specialised units like the National Cardio-thoracic Centre are also mentioned in this article.

Key Words: *History of medicine in Ghana, anaesthesia in Ghana, history of anaesthesia in Ghana, nurse anaesthetists in Ghana.*

The Beginning

“An historical review may be useful as offering a kind of a map of the science and of the roads by which it has been explored.”¹

(Humphry Davy 1810; cited John Davy 1839)

From the creation story, anaesthesia is the oldest clinical specialty. Man was put into a deep sleep² before surgery was performed on him for the removal of his rib. Out of this rib a helpmate was created for man. This story clearly illustrates the close link between anaesthesia and surgery right from the beginning of creation. This relationship though not “smooth” at times has persisted up till modern times. “We should therefore remember always that our specialties of anaesthesia and surgery are divine vocations, and that we must at all times approach our patients with humility, kindness and understanding”³.

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Introduction

Various agents and chemicals such as chloroform were used to produce “sleep” at the beginning of the nineteenth century. Modern day anaesthesia is said to have started on Friday 16th October 1846, when a Boston dentist William Thomas Green Morton (1819 – 1868) successfully demonstrated publicly the anaesthetic properties of ether (diethyl ether)⁴. This took place in the Bullfinch operating theatre of the Massachusetts General Hospital in front of an invited audience. A newspaper reporter was in the audience and the discovery of ether anaesthesia soon spread worldwide.

The patient was Gilbert Abbott (1825 – 1855) and the surgery was for a congenital vascular malformation of the floor of the mouth and tongue. The surgeon on this occasion was John Collins Warren. The patient remained in hospital for seven weeks. The word “anaesthesia” (insensibility) was suggested by Oliver Wendell- Holmes, a Boston academic and writer,⁵ in 1846 (1809 -1894).

Even though the history of medicine in Ghana has been written, there has not been a write up on the history of anaesthesia in Ghana specifically. This paper is therefore being written to fill in this gap. The author has “lived” through and has been part of some of these changes. In some instances, the author has initiated the change.

The setup

Most of the hospitals in the country do not have a separate unit of anaesthesia but are usually part of the department of surgery. In a few cases, like the Korle Bu Teaching Hospital (KBTH), there was a separate department of anaesthesia from the beginning. Korle Bu Hospital (KBH), as it was called until the establishment of the medical school, had a departmental head who was in charge of the day to day running of the department. The hospital was given the Teaching Hospital status in 1962 when the medical school started.

History of human resource development in anaesthesia

The Personnel – Physician Anaesthetists

Anaesthesia as a specialty has not been attractive to young doctors. With the establishment of the Ghana College of Physicians and Surgeons, it was hoped that the situation would improve. Unfortunately, however, figures from the College have proved otherwise. At the most recent graduation ceremony of the College there were only two anaesthetists compared to forty-five “surgical specialists”. The two most popular specialties are surgery and obstetrics and gynaecology.

The first Physician Anaesthetist in Korle Bu Hospital (KBH) was Dr. Graham, a Briton who had a Diploma in Anaesthesia (DA). He arrived in the then Gold Coast in 1953. He was in the country till about 1966 but never joined the medical school when it was established in 1962.

The first Ghanaian Physician Anaesthetist to arrive in the country was Dr Tagoe who also had a DA. He later went to Sierra Leone. Anaesthesia was therefore largely given by non-physicians in KBH and the rest of the country.

Dr Kofi Amoah Oduro who later became a Professor, worked as a medical officer in KBH from September 1958 till August 1959. He went to Glasgow in October 1960 to specialise in anaesthesia. He obtained the Diploma in Anaesthesia (DA) in May 1961, the Irish Fellowship (FFARCSI) in May 1963 and the English Fellowship (FFARCS) in June 1963. He was appointed a Special Grade Medical Officer in Anaesthesia in KBH in August 1963. Dr Oduro became the first Ghanaian with a postgraduate Fellowship in anaesthesia. He joined the Medical School when the clinical specialties started in September/October 1966. He was a Senior Lecturer from 1966 to 1972, Associate Professor from 1972 to 1976 and a Full Professor from 1976 to 1988. On his retirement he worked from 1988 to 1998 on contract.⁶

The history of anaesthesia in Ghana has evolved around Dr Oduro who spent over thirty years in the department. He was later joined by Dr Christopher Boateng, the second Ghanaian with the Fellowship in anaesthesia. Dr Boateng later joined the 37 Military Hospital in Accra.

Training Programme

Efforts were made to train Physician Anaesthetists from the mid -1960s. Dr Esi Mensah went to Cardiff, Wales in 1965. She returned in 1967 with the Fellowship qualification, becoming the third Ghanaian to have this qualification. Dr Maureen N K Nelson went to Westminster Hospital in London from December 1970 to September 1973. She also obtained the Fellowship in anaesthesia.

The first batch of locally trained medical doctors qualified in 1969. Subsequently it was hoped that there will be an increase in the number of young doctors opting to do anaesthesia. This was however not to be. Only one of the newly qualified doctors, Dr Yaw Adu-Gyamfi joined the department in 1970. He went to King’s College in London to do his training returning to Ghana in 1975 with the Fellowship qualification. He was the first alumnus of the Medical School to obtain a postgraduate Fellowship.

In August 1973, six medical officers were posted to the department in KBTH. This was followed six months later by another batch of six doctors. For the first time, the department had 12 medical officers. Out of this number four continued to specialise in anaesthesia under various sponsorships. Three went to the United Kingdom and one to Canada. Unfortunately only one of the four Dr Gladys Amponsah (née Oteng) ever returned to the country. This trend continued into the late seventies, eighties and nineties because of the harsh economic situation in the country, with virtually none of the doctors sponsored coming back.

The last medical officer to be sponsored was in September 1987. After this period, sponsorship was withdrawn as the sponsors (mainly the British Government) realised that the objective of training the needed manpower for the country was not being achieved. It is however worthy of note that the last doctor to be sponsored, Dr Eugenia Lamptey returned home and is currently the Head of Department at KBTH.

Local Training Programmes

West African College of Surgeons

In January 1975, the postgraduate training programme of the West African College of Surgeons (WACS) was inaugurated. Postgraduate training in anaesthesia in Ghana did not however start until the mid 1980s. To date only eight doctors have obtained the Fellowship by examination, the first one was Dr Francis Ahiaku who obtained his qualification in February 2006. Dr Irene Wulff followed a year later. It is worth noting that all 8 doctors are still working in the country.

West African College of Surgeons Diploma Programme

Because of the long period of training for the Fellowship qualification, the WACS under a directive from the Ministers of Health of the Economic Commission of West African States (ECOWAS) started the Diploma in Anaesthesia training programme in member countries including Ghana. The first

examination took place in Accra in October 1990. About 100 doctors have been trained since then but most of them are not in the country. A few have gone on to obtain the Fellowship qualification or have gone into other specialties.

World Federation of Societies of Anesthesiologists (WFSA) and American Society of Anesthesiologists (ASA) Diploma Programme

After a couple of years of discussion and planning the ASA DA training programme was started in Accra in October 1999. The main objective of this programme was to train diplomates for English speaking West Africa. Two doctors, Dr William Addison from Komfo Anokye Teaching Hospital (KATH) and Dr Rajif Bello from the University of Maiduguri Teaching Hospital (UMTH), Nigeria, started the programme. The WFSA and the ASA gave the trainees an allowance as an incentive. The programme was for a 5-year period. The high rate of passes in the examination, coupled with the promotion to a specialist status after four years by the Ministry of Health encouraged a number of doctors to join the programme.

The objective in Ghana was to train two diplomates in a year who will be then be posted to one of the 10 Regional Hospitals. This objective was however not achieved as some of the diplomates continued with the Fellowship programme while a few left the country. From 1999, over 70 diplomates have been trained. One of these doctors was from Sierra Leone and until recently was the only Sierra Leonian physician anaesthetist in that country. A second Nigerian doctor from the same hospital, UMTH, also benefited from the programme.

The author was the first coordinator for the programme. Unfortunately, the support from ASA was stopped about four years later without any clear reasons being offered by the ASA.

Ghana College of Physicians and Surgeons

This College was inaugurated in 2003 and the first batch of two doctors joined the Department in September 2004. The GCPS offers a 3-year membership programme. Sixteen doctors have obtained their Membership in Anaesthesia as at March 2010⁷. Two more doctors, one of whom is a Nigerian, passed the membership examination in September 2012.

Residents rotating in Anaesthesia

Since the inauguration of the West African College of Surgeons training programme, some faculties namely, obstetrics and gynaecology and surgery, include a 3-month period of rotation of their residents in anaesthesia. These residents have contributed to the provision of anaesthetic services in the KBTH hospital. In January 1975, the department of Anaesthesia KBTH had 4 consultants, 5 “permanent” medical officers and 9 residents from other departments⁸. The department of anaesthesia at KBTH continues to receive a number of

residents from other faculties including the Faculty of Family Medicine of the Ghana College.

Visiting Non-Ghanaian Specialists

Over the years, the department had specialists from outside Ghana⁸. These included Dr Enid LeGrange from South Africa (October 1965 to June 1967, July 1969 to December 1970), Dr Zipo Zwana from Zimbabwe (1972 – 1979), Dr John Searle a Senior Registrar from Guy’s Hospital (1972) and Dr Basil Hudson from Bristol (1973 to 1974).

In addition, there were a number of short term visitors to the department. These included Professor DJO ffoulkes Crabbe 1992, for about 3 months. She was a past president of the West African College of Surgeons.

Apart from these doctors who spent some time working in the department, there were a number of visitors to the department. They came from the UK, USA, Canada, Nigeria and East Africa (Kenya). These visits helped place the department on the world stage.

Nurse Anaesthetists in the health sector

Because of the small numbers of physician anaesthetists, the nurse anaesthetists provide the service in all the hospitals in the country. There were large numbers even in the KBTH and KATH until recently. Apart from the 3 teaching hospitals, that is, KBTH, KATH and the Tamale Teaching Hospital, 3 other hospitals in the Ghana Health Service have physician anaesthetists. They are the Ridge Hospital in Accra, Tema General Hospital in Tema and the Effia Nkwanta Regional Hospital in Sekondi. What this means is that a large percentage of patients in Ghana are anaesthetised by nurse anaesthetists.

Nurse Anaesthetist training programme

Before 1970, nurse anaesthetists had only 3 months training, mainly on the job. From 1970 onwards, a 6-month training programme was based in KATH and Effia Nkwanta Hospital with Dr Sen Gupta and Dr Abdel Yakub being in charge of the programme. There were 8 students each at Effia Nkwanta and KATH. This was in 1974. The same trainers started a second batch in 1976. Drs Aboagye and Owusu Afram trained the 3rd batch after which the programme collapsed.

Nurse Anaesthetist training School in Enugu

The post Basic Anaesthetist programme of the University of Nigeria Teaching Hospital in Enugu was established immediately after the Nigerian civil war in 1971. The late Professors P.O. Nwachukwu and T. I. Eziashi developed and ran the programme with its first intake in 1971. The initial objective was to train nurse anaesthetists to relieve the acute shortage of manpower in anaesthesia for the hospital. The programme was extended to other government and mission hospitals. Interest in the programme grew and in 1978, through the West African Health Community, the training was

extended to countries including Liberia, Ghana, Sierra Leone, Cameroon and The Gambia⁹. Selected Ghanaian nurses were sent to Enugu for training.

The training programme in Kumasi was re-started in 1986 with 12 students, with the assistance of the British Government. The second batch of 20 students started in 1988. The school re-started when Prof Martey was the Dean of the medical school at KNUST. Initially an anaesthetist from the UK was involved, namely Dr Ben O'Donohoe. He was later on joined by Dr Richard Page from the UK and Dr Annick Schmidt a German anaesthetist. Dr Frank Boni spent about 6 months in 1988 at the school. Dr Gabriel Boakye became the Director of the school from 1989 to 2012. The intake has been increasing over the years with the current class being 54 strong. The school has trained more than 500 students since its inception.

Additional Nurse Anaesthetist training schools

Because of the increased demand for nurse anaesthetists, two more schools were started in Accra, at the 37 Military Hospital in August 2004 and the Ridge Hospital in October 2009. The school at the 37 Military Hospital started with 11 students, 8 of whom graduated in February 2006. The school has turned out 118 nurse anaesthetists since its inception. Currently 21 are doing their internship and are due to graduate in March 2013. The Ridge Hospital School started with 19 students in October 2009. They graduated in September 2012. The fourth batch of 25 students has started their training.

Challenges with the Nurse Anaesthetists training programme

The nurse anaesthetists training programme has encountered a number of challenges over the years. There is no uniform training programme for all the schools, unlike the postgraduate training programme in medicine where all the training institutions follow the same syllabus set out by the various Faculties of the Colleges. Secondly, each school sets its own questions, date and time for the examinations. For the training to

be uniform, the Ministry of Health should come up with a syllabus which will be followed by all the schools. There should also be a central examination body to supervise and grade the trainees.

Bachelor of Science Degree in Nurse Anaesthesia

This programme has started at the Departments of Anaesthesia at the University of Development Studies, Tamale and Kwame Nkrumah University of Science and Technology in Kumasi. The course started 2012/2013 academic year in both centres.

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