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# LEGENDS IN UROLOGY

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I would first like to thank *The Canadian Journal of Urology* and its editorial board for inviting me to share my urological experiences in Jamaica.

I was born on the 13<sup>th</sup> of June 1934 close to the geographical center of Jamaica, the fourth child of Dr. E. G. Douglas and his wife Mildred. Those were the days when a general practitioner was truly a physician and surgeon as there were few specialists. As a child, listening to my father, I was so impressed by his tales of removing lesions from people when others before had failed that from early in life I knew that I wanted to become a surgeon. However this knowledge of what I wanted to do was not reflected in my choice of subjects at secondary school as there I concentrated on sports and pursued a curriculum that only required a good memory and not much application. I therefore graduated from school in 1952 with the Cambridge Higher School Certificate with all subjects in the arts and no physics, chemistry, biology or latin, the latter definitely needed for matriculation to enter a university!

While working at the government laboratory during the day, my evenings were spent at night school attempting to satisfy the requirements for acceptance to the Medical School at the University of the West Indies (UWI) in Kingston, Jamaica, a “Herculean” and seemingly impossible task. My memory prevailed and I was allowed to enter the Medical School in 1954 but with the proviso that the First MB hurdle be cleared meaning that the Higher School level in the required subjects had to be achieved in 9 months. Once again the “Cavalry” of memory aided by luck to the rescue and I was through to the manageable tasks of anatomy, physiology, pharmacology and later medicine, surgery and obstetrics and gynecology. However, I continued as a sportsman, representing the university at cricket, football and tennis, being elected Sportsman of the year in 1960 and winning the Open Tennis Championship in that same year.

I barely managed to pass my final MB, BS as Sir Hedley Atkins, our external examiner from Guys Hospital in London, was adamant that I be failed for wanting to amputate the foot of a young man with severe Buerger’s Disease (as had been taught by one of our tutors, to allow for early mobilization and a relatively quick return to work as a family bread winner!). Prof. Gilmour, the head of the UWI faculty and Harry Annamunthodo the senior surgeon refused to fail one of their better students and they eventually won out in the stand off. This incident had a direct bearing on my future as I was offered an internship in medicine and obstetrics and gynecology at the University (not in surgery) which I refused as I definitely wanted to specialize in surgery. So I became the first to refuse an internship at the University Hospital in favor of one at the Kingston Public Hospital (KPH) where I sat at the feet of Gamaliels Henry Uriah Shaw and later Alfred Carnegie FRCS. MRCP in the rural town of Savanna-la-mar.

My first brush with urology came while doing a ruptured ectopic pregnancy in Savanna-la-mar. Dr. Carnegie together with a visiting surgeon from Boston came into the OR, looked over my shoulder for a few minutes and left the OR. After the case the surgeon from Boston asked if I was interested in doing a Residency in Urology in Boston to which I replied in the negative explaining that my goal was to become a reconstructive surgeon, a liking I had developed while working with Ken McNeil, an excellent plastic and reconstructive surgeon at the KPH. In 3 weeks a letter arrived with a formal offer from Boston, which I again declined!

I went to Edinburgh, Scotland in 1965 to achieve my goal of becoming a Fellow of the Royal College of Surgeons (FRCS). Having been married in London and trying to find a job as a Registrar in plastic and reconstructive surgery,

on a cold evening while looking through the *British Medical Journal*, I came across a post advertising a 1 year Fellowship in Urology in Ottawa, Canada. The pay was excellent and the terms good! Notwithstanding the fact that I knew nothing about urology I applied with my resume and to my surprise had a letter of acceptance 3 weeks later.

And so began my urological career. At the Ottawa Civic Hospital under the tutelage of Dr. W. E. Collins I started a year's fellowship in urology and soon realized that to be properly trained 1 year was grossly insufficient. I therefore applied and was admitted to the formal urology training program at the end of my fellowship year. My training was enhanced by 3 months of intensive nephrology where the old "washing tub" dialysis machine was in use. The Kidney Transplant program had just been started in Ottawa and in this I took a keen interest. My training was split between the Civic Hospital and the General where Dr. Pierre Gaulin was in charge and from whom I learnt a lot.

At the end of 1969 I returned to the Kingston Public Hospital (KPH) in Jamaica. Back at home my first "battle" was to be recognized as a urologist. As was the custom then, the government Ministry of Health wanted me to be a general surgeon with an interest in urology. This I strongly objected to and after threats of heading back to Canada, was eventually appointed as Consultant Urologist. I was given a clinic day with 2 operating days per week and the benefit of private practice. Of course I had brought back from Canada my own instruments (cystoscope, resectoscope, lithotrite etc. along with incandescent bulbs and light source, fiberoptics had not yet become universally available). One day in the operating room, there was no visibility through my cystoscope! After trying to figure out what was wrong the scrub nurse sheepishly admitted that she had autoclaved the lens. That set cystoscopies back for about 3 weeks while another 70-degree lens was sourced and the 30-degree used for all purposes.

While rummaging through the hospital instrument storage room I came across a dusty but obviously almost new Kolf "washing tub" dialysis machine, the same model on which I had been trained in Ottawa! Apparently the former Senior Medical Officer, a surgeon, had purchased it in order to keep the KPH abreast of the times! During the next few days in my spare time the machine was carefully checked, then the instrument agent in Kingston for Kolf was approached and the Managing Director being an old school friend agreed to import the disposables (coils, dialysate and patient needles) to be paid for by KPH when used. This was discussed with the then Senior Medical Officer who agreed to stand the cost of the dialysis machine being put to use. The hospital physicians were then notified that the Kingston Public Hospital was ready for dialysis. Three weeks later "D C", aged 13 years was admitted with end stage renal disease (ESRD) as a result of glomerulonephritis. The prognosis without renal replacement therapy was very poor and so she became our first patient for chronic hemodialysis. I did a forearm arterio-venous fistula to provide vascular access and when it had matured a month later the patient was dialysed, the first in the English-speaking Caribbean to receive renal replacement for ESRD by this means. Dialysis was twice weekly for 6 hours each session the bath water being changed every 2 hours. This was done in the evenings from 7.00 pm until 1.00 am on Mondays and Fridays.

The patient did very well and in early September a motor vehicle accident left a young man brain dead and as he fit all the criteria for kidney donation consent was obtained from his father. The Chief Medical Officer, a past Senior Surgeon, was consulted and he opined that as there was nothing in the law prohibiting transplantation I could go ahead with his blessings. He actually came to the operating room to observe the surgery. All heads of surgical firms were involved and on an afternoon in September 1970, the first kidney transplant in the Caribbean was performed. The recipient site was first prepared then the donor kidney harvested, perfused with cold normal saline until the effluent was clear then transplanted using 4-0 siliconized silk for the vascular anastomoses and 4-0 chromic catgut for the vesico-ureterostomy. Urine was produced immediately and the recipient received postoperative care in an unused operating room that had been prepared for the occasion. Immunosuppression comprised azathioprine, prednisone, actinomycin C (don't know why?), irradiation of the graft with the Co60 machine (200 rads on days 2, 4 and 6 in an attempt to pick off the messenger cells leaving the graft to spread the news that a foreign tissue was in place). Over the years we continued to use this immune-suppressive regime until the advent of cyclosporine in the 1980's. The patient did very well with renal function returning to normal within 2 weeks. This marked the first kidney transplant operation to be done in the Caribbean.

Initially, I was my own "nephrologist" getting advice from my peers and former colleagues in Ottawa. Fortunately in 1971 Dr. George Nicholson, a well-trained nephrologist arrived at the University of the West Indies from Oxford, England and he took over the nephrological care of the transplant patients. Two transplants were done in 1971 one of whom is a retired nursing supervisor in Virginia USA. Transplanted at age 13 she at the time "adopted" me as her father. She had a second transplant done in the US about 6 years ago incidentally done by another Jamaican surgeon!

As 90% of the population of Jamaica is of African descent the incidence of sickle cell trait and disease are both very common. The attending hematuria occasionally becomes intractable and when this failed to respond to epsilon amino caproic acid (EACA) as was then used, the treatment was repeated transfusions or as a last resort nephrectomy. In the 1970's I developed the technique of "scoping" the exposed kidney, localizing and then excising the offending calyx. This was necessary in three cases. This technique of course is now obsolete with the advent of interventional radiology and nephroscopy.

Priapism is also frequent in Jamaica and when aspiration and the use of nor-adrenaline type substances fails, before going to a shunting procedure which has its complications, I introduced the technique of "dialyzing" the penis. After irrigation until the flow of blood is bright red, via a large bore dialysis needle inserted in the penis the pump on the dialysis machine is used to circulate the blood back to an arm vein. This keeps the penis flaccid. The circulatory process is discontinued every half hour and if the penis starts to tumesce the pump is again turned on. This simple procedure has prevented many a shunting operation.

In 1980 I did the first radical retropubic prostatectomy for early stage prostate cancer in the English-speaking Caribbean. The patient's son was a doctor who insisted that the prostate be removed surgically. The patient did very well and the floodgates were opened for this type of surgery in Jamaica. I subsequently introduced a technique for easy visualization of the supra-membranous urethra that simplified performance of the vesico-urethral anastomosis. Passage of the postoperative drainage catheter is stopped when the tip appears in the wound, the balloon is then inflated to 15 mLs and upward traction on the tip with a forceps reveals the length of urethra to be used in the anastomosis.

Although I take pride in the many honors bestowed on me by my University, the Medical fraternity and Nationally for my work, I am however most proud of starting the local postgraduate training program in urology. In 1973 the General Surgeon in charge of urology at the University Hospital (UWI) left to return to England and I was asked to assume his responsibilities. This on top of running the then very active urology service at the KPH, the Dialysis and Transplant Units, my private practice and being on call for all urological emergencies! This however gave me the opportunity of establishing a genuine urological service at the University Hospital. We were given our own dedicated allotment of beds, operating time and clinic days. Both at the KPH and University there were residents interested in doing urology. The very good ones were sent to my urology training alma mater in Ottawa. Unfortunately, most of those who completed their training in Ottawa found jobs and elected to remain in Canada. Dr. Robert Wan was the first and only one to return to practice in Jamaica and remains a prominent and excellent urologist in Jamaica.

Noting the success that the general surgeons had had with their post-graduate training program along with the "urological brain drain" I made a decision to start a local urology training program in Jamaica. From the caliber of urologists who have graduated and the quality of those in training I feel that I have been at least partially responsible for attracting the brightest and best of our young doctors, and this assures me of the future of urology in Jamaica and the wider English-speaking Caribbean. Urologic sub-specialization has now started in the Caribbean and the future is bright indeed! The first Graduate of the Doctor of Medicine Program (equivalent to urology residency in the USA) in Urology (DM) was Dr. William Aiken an excellent young urologist who headed the Urology Department at the University when I left in 1999 and continued supervising the training of urologists.

In developed countries urological surgery is now mainly done laparoscopically, either manually or robot assisted, major surgery in the Caribbean is still predominantly performed via the "open" route. The cost of disposable laparoscopic equipment and the cost of the robot (at least at the present time) put this beyond the financial reach of the public hospitals in the Caribbean where the majority of patients are treated. However looking into the future the role of surgery will be greatly reduced, as the prevention and cure of an increasing number of conditions including many malignancies will be achieved by non-surgical means.

If I had not started urology, dialysis and transplantation in the Caribbean others would have come along and done the same. All due to serendipity, if I had not wanted to amputate that young man's leg for Buerger's disease I would have interned at the university and missed out on the train of events that led to Urology in Canada. In my day kidney transplantation in Canada was the responsibility of the urologist while in the USA and in the UK it was in the realm of the transplant surgeon. Surely my exposure to nephrology and dialysis would not have occurred. Due to circumstances I have had the opportunity of working in maybe the most interesting and precise specialty of urology and the distinct honor of introducing it not only to Jamaica but also to the English-speaking Caribbean.

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