

A ROMANCE WITH UROLOGY IN MALAYSIA

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"... When I first joined the Malayan Medical Services in April 1954, little did I realise that in the following 29 years I was to develop a close rapport and romance with urological problems in Malaysia.

A senior member of the medical profession at that time was the then Mr. and now Tan Sri Abdul Majid bin Ismail who had a distinct vision of how the Malayisation of the medical services could be brought about rapidly. He inspired his friends and colleagues in the profession, individually and collectively, to prepare themselves for post-graduate studies in the specialities of their choice so that Malayisation of the medical services could come about without any fall in standards of medical care.

During my early days as medical officer in Seremban, I came under the influence of the then State Surgeon, Mr. Thomas Thornton, who had a special interest in urological problems. He was an expert at litholapaxy and used the Bigelow lithotrite to crush stones in the bladder and wash them out with great relish and ability. Working with him aroused my interest to specialise in urology.

The word 'urology' was unknown in Malaysian hospitals before 1962. The British influence on surgical training was such that the general surgeon had to manage all aspects of surgery. To one who had been trained in Australia, where specialisation was developing rapidly, this thinking did not seem altogether right. In fact if we

look back at the history of medicine, urology was the oldest surgical speciality and "cutting of the stone" or lithotomy can boast of a very long history. The father of modern medicine, Hippocrates, who was born in the Island of Cos in 460 B.C. had, even then, mentioned it in his Hippocratic Oath wherein he says, "Nor will I cut them that have the stone, but will send them to men whose work it is to perform that operation."

It was difficult to explain to some of my colleagues and friends why urology had to be regarded as a special field of its own. When one delved into the urological literature, emanating especially from the United States, one could see that rapid developments were taking place in urology. The developments in endoscopic surgery, radiology, nuclear medicine, genetics, immunology, dialysis and renal transplantation were considerable and exciting. Some of my colleagues in Australia were embarking at that time on urology as their career.

In 1957 plans were afoot to send me to the United Kingdom to do my fellowship. After trials and tribulations with the Primary fellowship, it was once again with the help of Tan Sri Abdul Majid bin Ismail, that I was fortunate enough to enter the Masters course in Surgery in 1961 at the University of Liverpool under its distinguished Professor of Surgery, Prof. Charles Wells. In the University of Liverpool at that time, urology and nephrology were developing as a speciality under Mr. Cosbie Ross, Mr. Norman Gibbon and others. After completion of my final fellowship, I was anxious to bring back to Malaysia at least one technique in medicine unavailable locally at that time. This was haemodialysis.

Prof. Wells arranged for me to study the workings of the Kolff Artificial Kidney Machine in Manchester under Mr. Thomas Moore. After a period of time in Liverpool and Manchester, I spent about six weeks at the famous Institute of Urology and its associated

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hospitals in London. Here I had the opportunity of seeing some great British urologists at work. Among them were Mr. David M. Wallace, Mr. Innes Williams, Mr. Peter Philip, Mr. Turner Warwick and Mr. J. D. Fergusson. The influence of Liverpool, Manchester and London not only encouraged me to develop urology as a speciality in Malaysia, but also made me realise that obtaining the fellowship was only a licence to start a training in surgery or any of its specialities.

On my return home with my fellowship, I had plans on being a senior registrar. Fortunately, this I was able to do with Datuk S.M.A. Alhady who was then the State Surgeon in the General Hospital, Kuala Lumpur. Working with him was a fruitful and eventful experience. When he knew I was interested in urology and nephrology, he was able to persuade Datuk (Dr.) Ten Yoon Fong, the Deputy-Director of the Ministry of Health, to buy the Kolff dialysis machine to start haemodialysis in Surgical Unit 1. The disciplinarian that he is, Datuk Alhady insisted that I should do dialysis only after office hours. This made dialysis more romantic.

The first haemodialysis was carried out in 1964 at the General Hospital, Kuala Lumpur. I must record here the help and unflinching co-operation rendered to me by Mr. P. Rajadurai, a technician at that time with the Anaesthetic Department (Fig. 1).

After the success with the first case of haemodialysis in 1964, my medical colleagues began to refer their cases of acute renal failure for management.

In the middle of 1965 when I was able to take advantage of my privileged leave, I went to the United States and visited some nephrological and urological units in Seattle, Cleveland and Boston.

In Seattle, I found the "Nephrophile of Kuala Lumpur", Dr. S. S. Gill, working with Prof. Belding Scribner, who was the first to introduce dialysis for chronic renal failure. The units were very well run and it was very impressive to see patients, who normally would have died if they had not been on dialysis, go back to their families. Many spouses helped their dear ones in the home dialysis programmes as well.

In Boston, I visited the Peter Brent Bigham Hospital where the earliest related kidney transplantation had been carried out by Mr. Joseph Murray, a plastic surgeon and his colleagues. Here I was able to meet and witness one of the "giants" of American Urology, Prof. Wyland Leadbetter at work. It was quite clear that the United States of all the nations had reached the zenith of urological development.

En-route home I visited Mr. John Swinney at Newcastle-on-Tyne, England, and his self-contained urological department where kidney transplantation was also being done. Mr. Swinney visited the General Hospital, Kuala Lumpur, on two occasions.

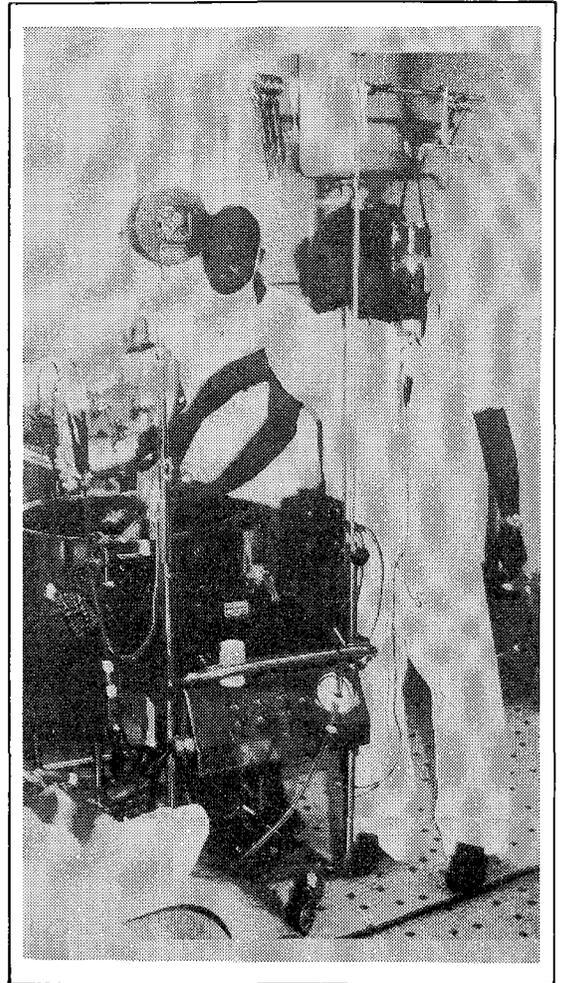


Fig. 1 The Kolff haemodialysis machine being set up for haemodialysis. Mr. P. Rajadurai, the technician from the Anaesthetic Department is seen in the picture.

In the latter half of 1965 with the encouragement of Sir Edward Dunlop of the Royal Melbourne Hospital and the then President of the Australian Asian Association of Victoria, I obtained the Australian Fellowship in Urology. This strengthened my case to establish a separate unit in urology. In October 1966, Sir Edward visited Malaysia and presented a set of urological books to the Parliamentary Secretary to the Ministry of Health, Encik Ibrahim bin Abdul Rahman.⁶

In December 1966, the fate of a school teacher Harry Kydd, aged 25 who was suffering from chronic renal failure was highlighted in the local press. This caught the attention of the public and soon donations came forth from them and even the Ministry of Health towards

buying an artificial kidney machine for Assunta Hospital to treat this patient. This incident and the influence of Dr. S. S. Gill in the Petaling Jaya area, persuaded the Rotary Club of Petaling Jaya to take an interest in the problems of patients with renal failure. Though Kydd had succumbed to chronic renal failure, his disease and the fate of many that suffered from it in the country, came into the public eye. The Rotary Club of Petaling Jaya then undertook, as one of its projects, the rendering of service to persons suffering from kidney disease.

It was not till the last quarter of 1966 that we commenced peritoneal dialysis in the General Hospital, Kuala Lumpur. We used the open method for inserting the catheter. In the initial stages, we used dialysis fluid imported from the United States; the cost of this fluid was \$2.61 per litre for the 1.5% and \$2.88 per litre for the 7%. As the cost of the imported fluid was prohibitive, we were able, with the help of the then pharmacist, Mr. Lee Sze Peng to produce dialysis fluid locally at 50 cents per litre. We soon discovered that the Kuala Lumpur water was just as good as the water from Cleveland Lake or the Rhine. Peritoneal dialysis was not only used for patients with acute renal failure and drug overdose but also in cases with chronic renal failure.

In 1967 the then Minister of Finance, Tun Tan Siew Sin accepted on behalf of the Malaysian Government an offer of \$4,000 for an artificial kidney machine for multiple dialysis from a Britisher who wanted to remain anonymous. When the Ministry of Health queried this, I pointed it out that there was no proper place in the then General Hospital, Kuala Lumpur to house such a machine. Dr. Fang Ung Seng, who was Director of Hospitals, then

took up the question of erecting a temporary building to install this machine. Several sites were offered for this building. But knowing as I did the General Hospital, Kuala Lumpur, like the back of my hand from childhood days and bearing in mind the prospects for future expansion, I requested that the dialysis unit be built on the site of the old ward 3. Hurriedly I had to submit a sketch plan of the dialysis unit to the Public Works Department, showing the requirements as they had no experience in building a unit of this nature before. The construction of the building commenced in 1968 and was completed in 1970.

On 22 February 1968, a meeting was called in the Ministry of Health under the Chairmanship of Tan Sri Mohammad Din bin Ahmad, the Director-General of Health, to discuss the establishment of a urology unit. The late Tan Sri Dr. R. P. Pillai, who was a well-wisher of urology and nephrology, played no small part in these discussions and in the development of this speciality.

With the consent, co-operation and assistance of the physicians and surgeons of the General Hospital, a few beds were made available for urology and dialysis in the surgical and medical wards. Later, old ward 4 (Fig. 2) was given over to urology and two afternoon operating sessions were allotted. The nucleus of the urology unit was thus set up and as luck would have it, Dr. E. Proehoe-man joined the urology unit at this time. From then he has been a pillar in the development of urology in Malaysia and his experience and training in the United States, especially in endoscopic work, drew special attention to this department.

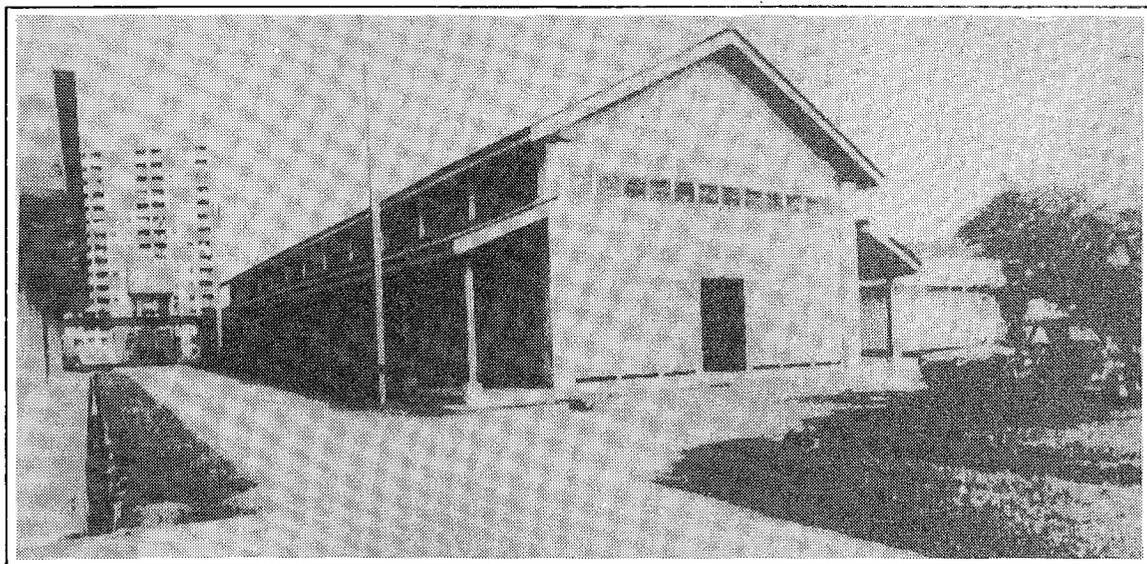


Fig. 2 Old ward 4 was allotted to urology in 1968 for the treatment of male urological patients.

From July 1968 to May 1969 when I was away in the United States, Dr. Proehoeman kept the unit going. On my return in May 1969, I found the new dialysis unit was under construction but there was no sign of the donated kidney machine. However, while waiting for the building and the machine, following the example of Dr. S. S. Gill in Assunta Hospital, we developed a modified two tank dialysis system with Keill dialysers, and commenced chronic haemodialysis at one end of Ward 4 with the help of two technicians trained in the United States, Encik Mohamad Hanip bin Che Man and Mr. Tan Teck Khiam, and Sister M. Mahalingam and her staff.

Soon the new dialysis unit was nearly ready but still there was no sign of the donated kidney machine. This was no unusual situation; in order to make use of the building I was able to persuade the Ministry of Health to order the Biosystems multiple dialysis unit. Thus the gift, though not received, was used to build the dialysis unit and the dialysis unit was used to buy the machine. In what can be called a twist of fate, chronic haemodialysis had come to stay as a project of the Ministry of Health. I felt it was very important to establish a fully functioning haemodialysis programme if we were to launch a transplantation programme later. So I spared no effort in pushing this through.

We took over the new dialysis unit on 21 January 1970 and transferred the two locally made tank dialysis systems to one side of the new building and did haemodialysis there. The new bio-systems machine (Fig. 3) was delivered in October 1970. Even after it became functional, we continued to use our two tank system to take on more patients and to act as a stand-by unit.

On 16 January 1970, the Rotary Club of Petaling Jaya under the Chairmanship of Mr. J. W. Henderson launched the formation of the National Kidney Foundation with the then Minister of Health, the late Tun Haji Sardon bin Haji Jubir, as President. It had a very active secretary in Mr. Oscar Fernandez and the services of Mr. Michael Teh Khoon Heng.

In March of that year, I submitted a paper to the Government on the development of urology and nephrology in the Second Malaysia Plan. While this was under consideration, I prepared a more detailed memorandum to the National Kidney Foundation for the establishment of a National Institute of Urology and Nephrology at the General Hospital, Kuala Lumpur. This paper was discussed at several meetings of the National Kidney Foundation and was subsequently taken up with the Minister of Health, first in October 1970 and then in early 1971.

My proposals envisaged that the Institute of Urology and Nephrology be built on the site of the old ward 2 and the Physicians Clinic. The Minister then directed that

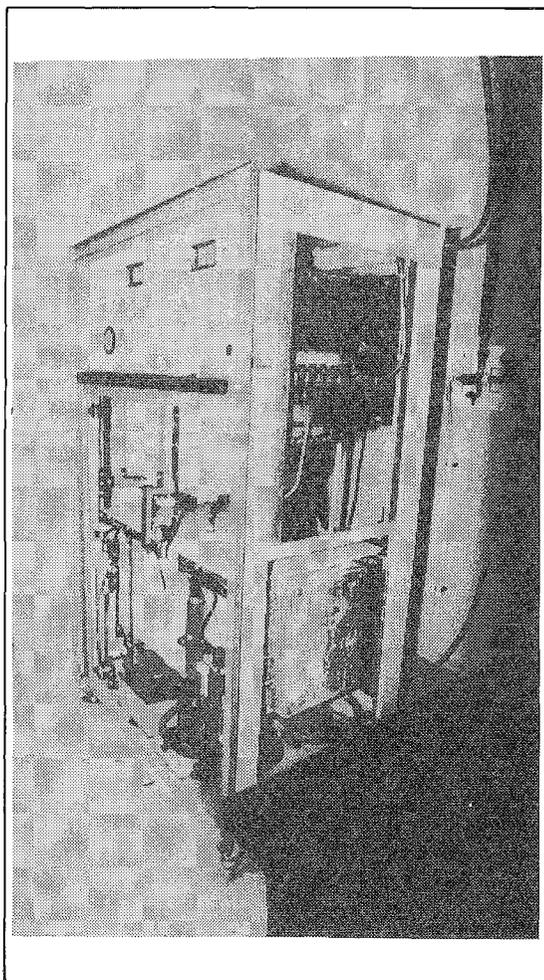


Fig. 3 The new Bio-system machine delivered in October 1970.

plans be drawn up for the construction of the Institute. It is my duty at this point to say a particular word of thanks to Messrs. Wells and Joyce, the hospital architects, who spent several afternoons with me finalising the plans for the new Institute. The Institute was to have a total of 128 beds for urological and nephrological cases with an outpatient clinic, radiological facilities and a fully modified operating theatre suitable for urological surgery and extensions to the existing dialysis unit. The plans were submitted in the first quarter of 1971.

The aim of the Institute was not only to carry out treatment of urological and nephrological problems, but also to undertake the development of a transplantation programme, establish a stone analysis laboratory and a department to carry out metabolic studies in renal disease.

In the meantime in 1970, with the help of the Department of Radiotherapy and Nuclear Medicine of the General Hospital, Kuala Lumpur, we utilised the Siemen's Nucleopan triple probe to study and interpret dynamic time concentration changes in renal function especially in deciding which of the better kidneys to operate on in cases of bilateral renal calculi. We learnt quickly that this investigation was also useful in cases of uric acid nephropathy and in cases with uraemia. In this study we had the valuable help of Dr. K. E. Britton of the United Kingdom and later Dr. V. Mahadev. One other study was carried out with Prof. A. Raman of the Physiology Department, University of Malaya, to estimate urinary osmolarity and excretion of sodium calcium and magnesium in patients with renal calculi. It was our view that the relative amount of calcium in the urine in relation to other solutes leads to stone formation.

In all this work, the value of running a combined Urology and Nephrology Unit became increasingly clear. From September 1970, first Datuk (Dr.) K. Sarvananthan and then Dr. Lloyd V. Thalayasingam took over the increasing load of the dialysis unit and nephrological problems.

One of the most satisfying things in life is not so much starting a project or unit but passing it on to a younger colleague who will then be able to develop and build it to greater heights. In 1971 what I regard to be one of my greatest acquisitions came in the form of a dynamic young man from a distinguished Johore family, a product of the Melbourne University, and the Royal Australasian College of Surgeons. He was keen to do urology. He is none other than the present Head of the Department of Urology, Datuk Prof. Hussein bin Awang. After joining the unit, he spent six months with Prof. Gerald Murnaghan at the University of New South Wales and Prof. Ross Sheil, Head of the Transplantation Unit in St. Vincents Hospital, Sydney. Since he took over the unit in August 1974, with the help of Dr. Abu Bakar bin Dato' Suleiman, he has built up the unit to greater heights. Dr. Abu Bakar on his part has been very active in developing the Nephrology Unit and the dialysis programme. Almost every aspect of urological and nephrological work is being handled at the Institute, including home haemodialysis and renal transplantation. All the 128 beds are now always occupied.

In the next part of this oration, I propose to look into some of the urological problems we have seen in Malaysia and how their management has altered as a result of the development of urology here over the last 20 years.

UROLOGICAL PROBLEMS COMMON TO MALAYSIA

For the purpose of comparing the incidence of the urological diseases, I have gone as far back as the 1902

F.M.S. records and the Annual Returns of the Ministry of Health. Some of these were available at the National Archives, Institute for Medical Research and the Ministry of Health. Genito-urinary diseases do not appear in the reports till 1931, and the emphasis had only been placed on communicable diseases like malaria, smallpox and cholera. No records were available for the years 1939-1946, probably because they were not compiled during World War II and the years immediately after.

URETHRAL STRICTURES AND THEIR COMPLICATIONS

In spite of improvements in treatment, the incidence of urethral strictures between the years 1932-1980 appears to occur nearly in proportion to the increase in population as shown in Table I.

In the early 50's it was not uncommon to see in the surgical wards several cases of urethral stricture with multiple peri-urethral abscesses, extravasation of the urine and gangrenous cellulitis of the scrotum and perineum. Some areas of the skin were necrotic and the patients were quite toxic from infection. Many of these strictures were gonococcal in origin; all we could do and did do in those days was to perform a suprapubic cystostomy as the strictures were usually impossible to dilate. When our interest in urology developed in the early 60's we treated these cases by laying open the abscesses and doing a perineal urethrostomy. In the older patients a permanent perineal urethrostomy was established and though the male patients had to squat to empty the bladder they were very much happier to be relieved of the cystostomy tube.

In early 1968 with the introduction of panendoscopy and urethrograms it was possible to determine the exact site and length of the strictures and since then urethroplasties of various kinds have become a standard procedure. Short strictures can now be dealt with by a visual urethrotome. As seen in Figure 4 from 1968, urethroplasty was a more common method of treatment of urethral strictures. But since 1981, internal urethrotomy appears to be a more popular method of treatment in the Institute of Urology. Multiple-staged urethroplasties are also done for traumatic ruptures of the urethra but the problems in regard to incontinence, impotence and sterility have not been satisfactorily solved.

TABLE I

INCIDENCE OF URETHRAL STRICTURE PER 100,000 POPULATION (1932-1980)

1932	1947	1950	1960	1970	1980
2.0	5.7	5.4	5.5	6.5	5.3

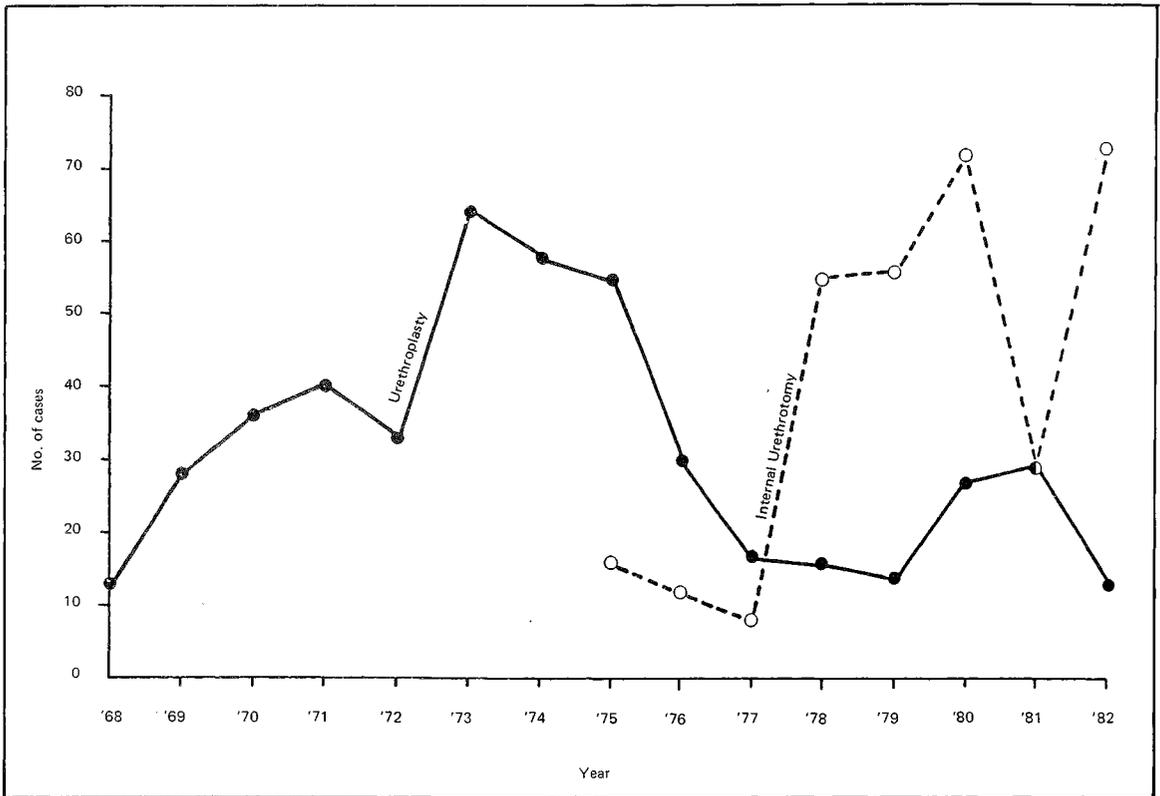


Fig. 4 Method of treatment for urethral stricture at the General Hospital, Kuala Lumpur, 1968–1982.

HYPERPLASIA OF THE PROSTATE GLAND

When we look at the incidence of hyperplasia of the prostate (Table II) from 1932 to 1980, there is a steady and definite rise in the number of cases, especially from 1960. One could attribute this rise to increased life expectancy, better diagnosis and the confidence patients have gained in surgical treatment.

Before 1968, the standard method of prostatectomy in most hospitals for acute retention was the technique popularised by Sir Peter Freyer in 1900. This method

TABLE II

INCIDENCE OF HYPERPLASIA OF THE PROSTATE PER 100,000 POPULATION (1932–1980)

1932	1947	1950	1960	1970	1980
0.1	1.5	0.6	3.8	10.0	12.2

has stood the test of time though some surgeons in Malaysia prefer the Millin prostatectomy. It was not till 1968 that transurethral resection of the prostate was done in the General Hospital, Kuala Lumpur. It was introduced by Dr. E. Proehoeman at the Institute of Urology and has since become the standard technique unless there are indications otherwise to adopt the open method.

I think it is right at this stage to sound a note of warning. Dr. Rodger Barnes had said years ago that endoscopic surgery is a speciality within a speciality, requiring intensive and prolonged training under supervision. Therefore it should not be done by an occasional resectionist. If improperly performed the incidence of incontinence, perforations of not only the urethra and bladder but also of the rectum can be formidable and beyond correction. I do not want to be dogmatic and say that all cases of prostatectomy can be done only by transurethral resection. However if we look at the method of management of enlarged prostate in the Institute of Urology from 1968, it is clear that most cases of hyperplasia of the prostate are dealt with by transurethral resection. While only five cases were done in 1968 when the procedure was introduced, by 1982, 333 cases of

obstructive prostatomegaly were dealt with by transurethral resection (Fig. 5). This is in keeping with the trend in most urological units.

In my own practice I tailor the procedure to the patient's need. There is very little place today for leaving a suprapubic catheter in cases of prostatic obstruction. Though carcinoma of the prostate has been treated with hormones only, it is now customary to do a transurethral resection for obstructive symptoms. Rectal examination and a high degree of suspicion remain the main method of early diagnosis of carcinoma of the prostate. In a personal series between 1976–1983, I have seen 16 cases of carcinoma of the prostate and it appears that there is an increasing incidence of this condition in our country. External radiotherapy is a useful adjunct in the management of the malignant prostate.

URINARY CALCULI

In the case of urinary calculi, the increase in incidence is particularly marked over the same period 1932–1980 (Table III). This is very much in keeping with the trend in industrialised countries.

TABLE III
INCIDENCE OF URINARY CALCULI
PER 100,000 POPULATION (1932–1980)

1932	1947	1950	1960	1970	1980
1.5	6.0	6.1	18.6	29.7	34.9

When a comparative study was made over a 15-year period from 1962–1976 of calculi occurring in the kidney and ureter on the one hand and bladder on the other, it was found that 63% of the calculi were from the kidney and ureter, and 37% from the bladder (Fig. 6). While the incidence of bladder stones is still high when compared to Western and Japanese figures, it would appear to be levelling off at a lower range as in the industrialised countries.

The management of urinary calculi over the years has been changing. Before 1968 nephrolithotomy and splitting of the kidney were the methods of approach for

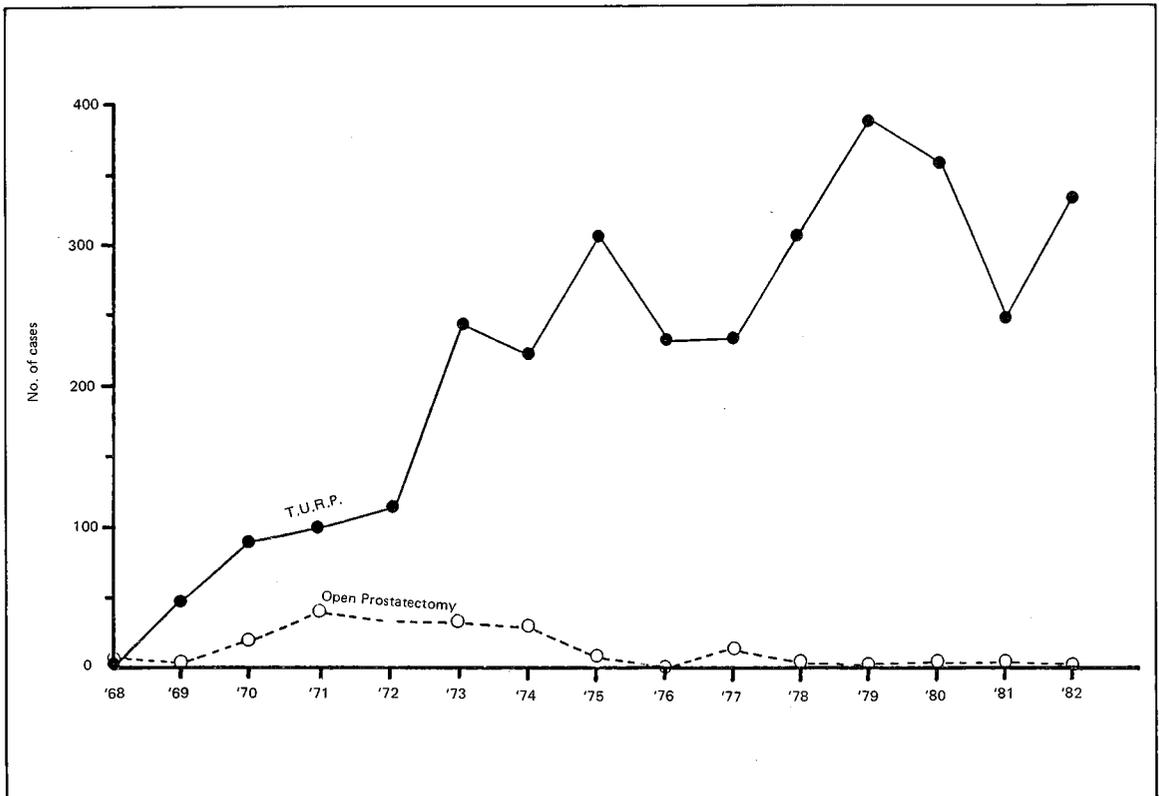


Fig. 5 Trend in the management of enlarged prostate, General Hospital, Kuala Lumpur, 1968–1982.

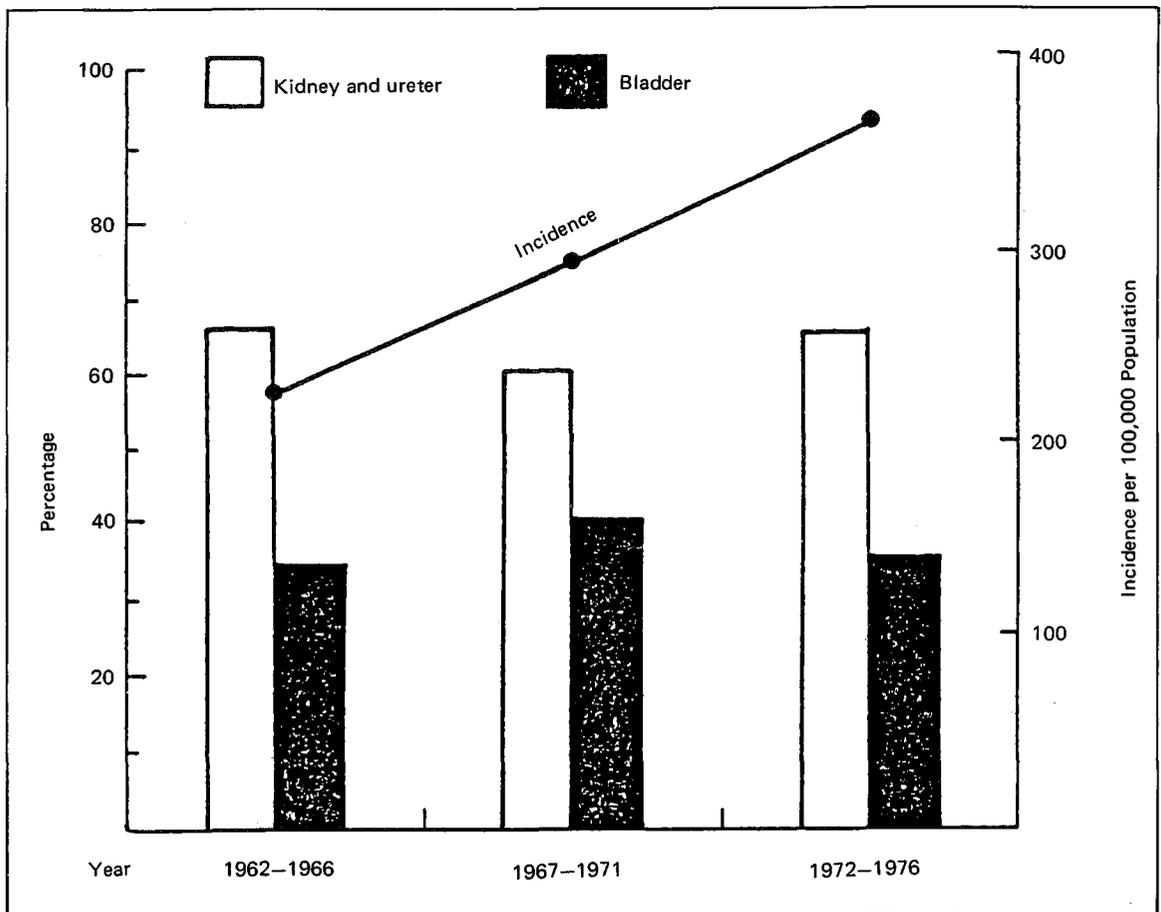


Fig. 6 Graph showing the changes in the total and percentage incidence of stones.

dealing with large staghorn calculi; one can recall the problems of primary and secondary haemorrhage associated with these operations. In many cases of staghorn calculi, nephrectomy was the mode of treatment. The extra-capsular approach to the renal sinus described by Gilvernet in 1965, without doubt, constituted a major advance in the operative management of cases with staghorn calculi. This procedure was introduced in the Department of Urology, General Hospital, Kuala Lumpur in 1969 and has since become popular.

In cases where there is a marked intra-renal pelvis and adhesions around the pelvis, a 'V'-shaped incision with the apex of the 'V' placed near the pelvi-ureteric junction was found by us to be more practical. More recently, I understand, in the Department of Urology, local cooling of the kidney is used to deal with large renal calculi. The problem of operating on a solitary kidney with stones will always continue to cause anxiety to the urologists.

The formation of recurrent stones following their initial removal still constitutes a major problem. Many methods have been suggested to reduce recurrence of calculi to a minimum, one of them being the use of contact X-ray plates for taking portable X-rays to localise and remove remnant fragments of stones at operation. It has also been found very useful to undertake a proper chemical and crystallographic analysis of urinary stones and treat the patients accordingly. If the stone is found to be mainly uric acid or cystine, then treatment with allopurinol for the former and penicillamine for the latter could reduce recurrence. For calcium oxalate stones which form the bulk of the urinary calculi there is yet no proper prophylactic treatment, though one view recommends a vegetarian diet for these patients. In cases of phosphatic stones, control of infection and rendering the urine sterile is particularly useful to prevent recurrence. In the treatment of recurrent urinary calculi one can reach a point of desperation and with a sense of humility say to the patient, "I have removed the stone but God will prevent the recurrence".

Amongst urologists there is a considerable difference of opinion on how to deal with ureteric stones especially those found in the lower third of the ureter. This is because it is impossible to predict with certainty the fate of any particular type of ureteric stones. While 70–80% of stones of less than 4 mm in width on X-rays are passed out spontaneously, it is rare for those greater than 6 mm in width in the upper and lower urinary tract to be passed out. Stones in the lower urinary tract of suitable size can be safely extracted by the use of a ureteric basket and in my experience I have found that the Davis loop extract is a very safe instrument for this purpose. In a personal series of 100 cases of 74 males and 26 females, lower ureteric stones were extracted successfully in 78 of them.

Those dealing with urinary calculi will realise that urolithiasis is a dynamic process changing its pattern of occurrence according to diet, climate and environment.

It is interesting to compare the incidence of urethral stricture, hyperplasia of the prostate and urinary calculi from the years 1932–1980. While the incidence of urethral strictures has been in proportion to the rate of increase in population, the incidence of hyperplasia of the prostate and urinary calculi has been higher (Table IV, Fig. 7).

PROBLEMS WITH MALE INFERTILITY

A new feature that one has noticed in the Malaysian urological practice has been a growing interest in the problems of infertility over the last two decades. While in the management and assessment of these cases, careful hormonal studies and the help of endocrinologists is useful and necessary, problems of varicocele and strictures have come under the purview of the urologist. In a personal series during the years 1976 – April 1983, 131

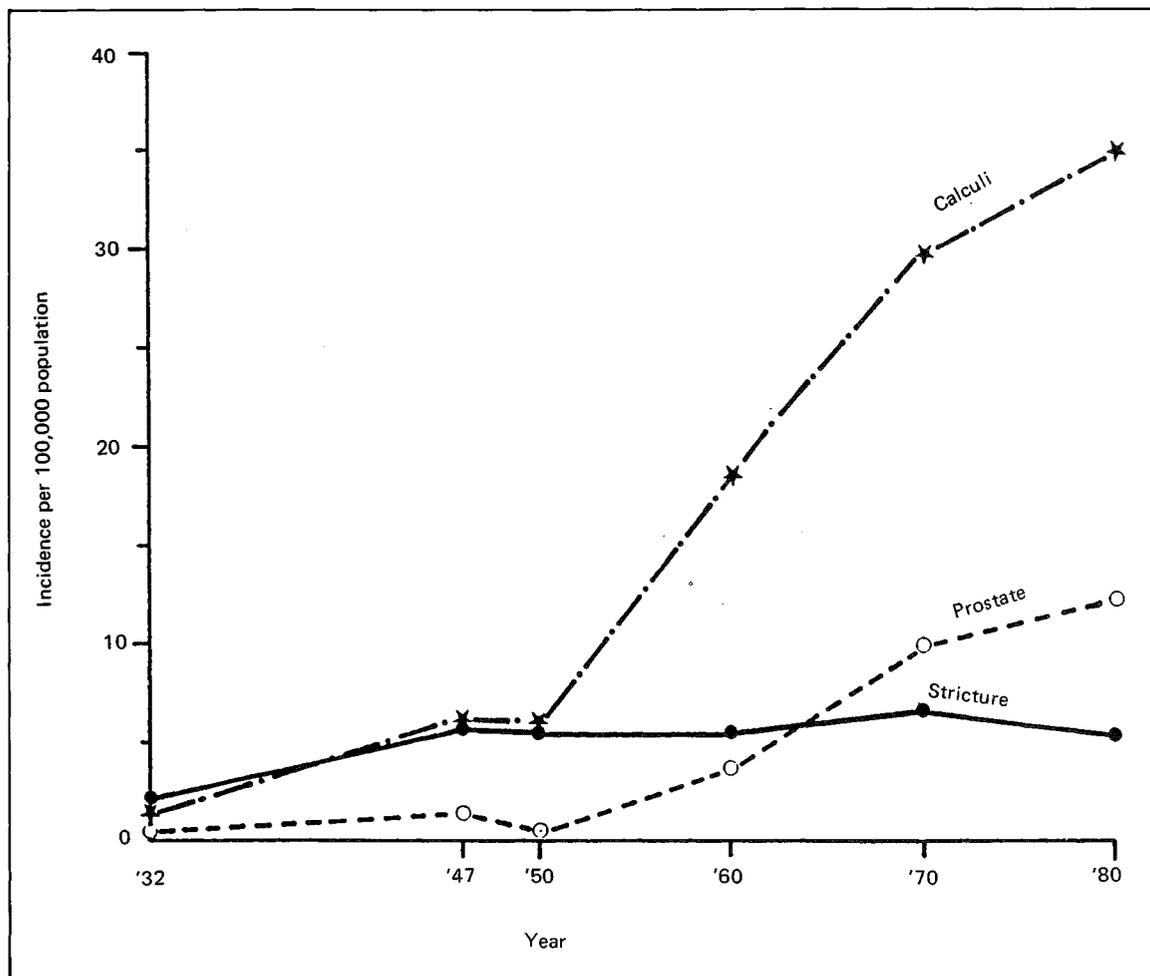


Fig. 7 Comparative incidence of urethral stricture, hyperplasia of prostate and urinary calculi per 100,000 population, 1932–1980.

TABLE IV
COMPARATIVE INCIDENCE OF URETHRAL
STRICTURE, HYPERPLASIA OR PROSTATE AND
URINARY CALCULI
PER 100,000 POPULATION (1932-1980)

Year	Urethral stricture	Hyperplasia of prostate	Urinary calculi
1932	2.0	0.1	1.5
1947	5.7	1.5	6.0
1950	5.4	0.6	6.1
1960	5.5	3.8	18.6
1970	6.5	10.0	29.7
1980	5.3	12.2	34.9

cases were referred with infertility and of these, 63 had a varicocele for which they had a varicocelectomy. But only 30 of these returned for follow-up; of the 30, 15 were able to father children.

URINARY TRACT INFECTION

The avalanche of new knowledge with regard to the diagnosis and treatment of urinary tract infection is considerable.

The sheet anchor of treatment in urinary tract infection, wherever possible, is a proper culture of the urine and the use of antibiotics to which the organisms are sensitive. With nephrologists and physicians taking an increasing interest in the treatment of urinary tract infection, the urologist is left to deal with conditions that perpetuate these infections, like urinary calculi and an enlarged prostate. Over the last decade, cases of prostatitis and non-specific urethritis in the male and the frequency dysuria syndrome in the female have had to be dealt with increasingly by the urologists. Childhood urinary tract infection and its relation to vesico-ureteric reflux are also being better recognised and treated in Malaysia.

GENITO-URINARY MALIGNANCIES

In the investigations of renal malignancy, the introduction of a painless and non-invasive ultrasound examination of the kidney, over the last five years in Kuala Lumpur, has added a very important tool in diagnosis. This test is able to differentiate between a solid and cystic mass in almost 90% of cases. Renal arteriography and CAT scan are now more commonly performed on patients with suspected renal tumours. In some

instances, when the renal tumours are large, embolisation of the renal artery is done to reduce the size of the tumour. This is one form of interventional radiology that has been introduced prior to surgical treatment. With increasing competence in endoscopic technique, early carcinomas and papillomas of the bladder are easily dealt with by transurethral resection.

RENAL FAILURE

Haemodialysis was commenced at the General Hospital, Kuala Lumpur for acute renal failure in 1964 and for chronic renal failure only in 1969. Dialysis for chronic renal failure was commenced for four patients initially, but in the latest returns of the Institute of Urology and Nephrology, 121 patients were on the chronic haemodialysis programme in 1982. The renal transplantation programme which was started by Mr. Awang and his team in 1976, without much ado, has progressed rapidly and the latest figure indicates that 118 patients have had renal transplants. I am sure many problems have been encountered with such a large transplantation programme. But these have obviously been handled by both the urology and nephrology teams very well. This I would like to say is a matter of great pride for the Institute of Urology and Nephrology, General Hospital, Kuala Lumpur and the country as a whole. The results of the renal transplantation compare favourably with that of the best centres anywhere. I am very happy that my early hopes of a renal transplantation programme could be developed in Kuala Lumpur has been fulfilled in such a short time.

FUTURE DEVELOPMENTS IN UROLOGY IN MALAYSIA

The time has now come to strongly argue for independent departments of urology, at least located at the general hospitals in each state. It is also my belief that the Institute of Urology and Nephrology at the General Hospital, Kuala Lumpur, can be developed into a regional urological and nephrological centre for the ASEAN region. Such a centre could train urologists and nephrologists, and manage the more difficult urological and nephrological problems. This is not a pipe dream of a romantic visionary. It is an idea that we can work towards if we handle it with determination, imagination and foresight.

In order to work towards this aim, we have to establish three important facilities at the Institute of Urology and Nephrology. These are: a clinical and administrative records office; a post-graduate training programme; facilities for research on local and regional problems.

I would like to discuss these three aspects a little further.

CLINICAL AND ADMINISTRATIVE RECORDS OFFICE

A very strong plea is made for the establishment of a records office not only for the filing of case notes and X-rays of patients in the Institute of Urology and Nephrology, but also to monitor carefully and accurately the incidence of urological diseases in the whole country.

Quality of care can only be improved and assessed if the morbidity and mortality are monitored and the results of treatment honestly assessed. It will be necessary in the long run to introduce computer and microfilm techniques to preserve our records. If the Institute is to gain a regional and international status, it is important to maintain a good records department and funds used for this purpose is money well spent.

POST-GRADUATE TRAINING PROGRAMME

The quality of practice of urology will very much depend on the type of training and residency programme that is provided. It is especially important that the trainee is carefully supervised and residents are introduced gradually to increasing responsibility. When such a training programme is organised, it will attract the best amongst our young men and women, and our standards will be recognised internationally.

Medicine has always been international and we should not hesitate to allow our young men and women to go and learn special skills from masters abroad. There should be a regular exchange of distinguished urologists from abroad and urologists from our country. As early as 1902, Sir William Osler speaking on chauvinism in medicine said, "The profession in truth is a sort of guild or brotherhood, any member of which can take up his calling in any part of the world and find brethren whose language and methods and whose aims are identical with his own".

RESEARCH

If a department is to make its mark, it has to undertake research in the various aspects of its work. As in other branches of medicine and surgery, rapid and exciting advances are being made in the fields of urology and nephrology. Advances in biochemistry, endocrinology, immunology, nuclear medicine, ultrasonography, microvascular surgery and urodynamics are beginning to influence the management and care of urological patients. We must take note of these advances and carry out our

own research projects to see how they can be used under local conditions. For example, in Europe and in some centres in USA, percutaneous litholapaxy of renal calculi with ultrasound and the extracorporeal short wave lithotripsy have been used as a new therapeutic tool for the disintegration of urinary calculi. But some of these equipment are bulky and expensive. One would have to wait and watch if these methods become practical and feasible for introduction into our country where the incidence of stones is high.

In view of the increasing motor vehicular accident rates, the problems of paraplegia and their urological management will become an increasing responsibility of the urologists. Funds are a constant problem for research. I do hope that many Malaysian benefactors will donate freely to the National Kidney Foundation to support urological and nephrological research to meet the challenges of the 21st century.

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