UROLOGICAL SERVICE AT THE GENERAL HOSPITAL, KUALA TERENGGANU

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INTRODUCTION

The aim of this paper is to study the urological problems presented to the Surgical Unit, General Hospital, Kuala Terengganu, over a period of two years. This study also attempts to assess the extent of urological expertise, especially in endoscopic urology, a general surgeon in a regional hospital should possess in order to provide the best possible service.

Most surgical departments of the Government general hospitals in Malaysia perform most forms of conventional urological operations. In the late 1960's, an Institute of Urology and Nephrology was set up in the General Hospital, Kuala Lumpur, to handle more complicated urological diseases, to perform endoscopic urology and to offer renal transplant services.

In 1976, the General Hospital, Pulau Pinang, was the only other centre with a department of urology performing conventional and endoscopic urological operations by a consultant urologist. However even this service became disrupted after the urologist resigned a couple of years later.

General surgeons with previous experience and exposure in urological surgery have recently taken up endoscopic urology in some general hospitals, within the limitations of special equipment and facilities available.

MATERIALS AND METHOD

All urological operations and procedures performed from 1 January 1984 till 31 December 1985 were studied.

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As far as conventional urological surgery was concerned, no sophisticated technique or equipment was used. Nephrolithotomies were performed by isolating and clamping the renal artery and then cooling the kidney with crushed ice and ice-cold saline. Wherever possible intra-operative radiographs were performed to confirm complete removal of calculi.

Where endoscopic surgery was practised, rigid cystoscopes and resectoscopes were used. A versatile and reliable diathermy machine is essential.

Most urethral strictures were dealt with by an optical urethrotome and occasionally by an otis urethrotome. Recently the hospital has acquired an a c — arm X-ray machine with a television monitor. This has definitely improved the success rate in extracting lower third ureteric calculi with dormia baskets.

Small vesical calculi were removed endoscopically after crushing with a lithorite under vision.

RESULTS

In 1984, 2,063 surgical operations were performed. This figure rose slightly to 2,160 in 1985 (Table I).

In 1984, 261 urological operations were carried out, this being 12.7% of the total surgical procedures for that year. In 1985, 299 (13.8%) urological operations were undertaken (Table II).

In 1984, operations requiring endoscopic procedures comprised 55.1% of all urological operations. Penile and scrotal operations were 34.9%, and those on the kidney, ureter or bladder were only 9.6% of the total.

Whereas in 1985, endoscopic procedures were 56.9%, penile and scrotal operations 37.5%, and operations on the kidney, ureter or bladder were only a mere 5.7% of the total urological operations (Tables III, IV and V).

TABLE I

WORK LOAD OF THE VARIOUS OPERATING UNITS, GENERAL HOSPITAL, KUALA TERENGGANU

Unit	1984			1985		
	Major operations	Minor operations	Total	Major operations	Minor operations	Total
Surgery	1201	862	2063	1270	890	2160
Orthopaedics	556	347	903	638	449	1087
Obstetrics & Gynaecology	135	446	601	164	517	681
Eye	100	3	103	95	7	102
Dental	12	3	15	21	9	30

TABLE II

BREAKDOWN OF SURGICAL OPERATIONS AND PROCEDURES

Speciality	1984		1985	
	Operations (no.)	(%)	Operations (no.)	(%)
General surgery	1599	77.5	1649	76.3
Urology	261	12.7	299	13.8
Plastics	108	5.2	103	4.8
ENT	80	3.9	87	4.1
Neurosurgery	15	0.7	22	1.0
Total	2063	100	2160	100

TABLE III

OPERATIONS REQUIRING ENDOSCOPY AS PART OF THE OPERATIVE PROCEDURE

Operations	Year	
	1984	1985
Cystourethroscopy	43	74
TURP	31	37
Trans-vesical prostatectomy	13	11
Millins prostatectomy	3	0
Vesicolithotomy	20	19
Urethrotomy	9	5
TURBT	1	6
Cystodiathermy	1	0
Litholapaxy	9	3
Bladder neck resection/dilatation	4	3
Ureterotomy of U-V junction	0	4
Meatotomy/meatoplasty/dilatation	7	1
Dormia basket extraction of calculus	0	1
Retrograde pyelograms	3	5
Trans-urethral excision of ureterocoele	0	1
Total	144	170

DISCUSSION

In Terengganu, most of the patients belong to a very closely-knit, extended rural family system. Traditional method are the first choice of treatment for their ailments. Surgical treatment with a knife is regarded as taboo. Consent for surgery, if given at all, must be obtained from grandfathers and village elders. Separation of a patient from his family is unacceptable, and therefore referral to a specialised centre like the General Hospital, Kuala Lumpur, is not welcome.

I find that the patients here accept endoscopic urological surgery far more readily than conventional operative urological surgery. Therefore, acquiring skills in endoscopic surgery has a definite edge and advantage in this environment.

When one compares the figures for 1984 and 1985, 43 more endoscopic procedures were performed. More transurethral resection of the prostates (TURP) were performed than by the open methods. This was mainly due to patient preference. Our experience also showed that transurethral prostatectomies were generally associated with lesser operative time, lesser intra-operative and post-operative bleeding, lesser post-operative complications and earlier discharge from hospital.

TABLE IV
RENAL, URETER, BLADDER SURGERY

Operations	Year	
	1984	1985
Nephrectomy	5	7
Nephrolithotomy	4	0
Pyelolithotomy	3	1
Nephrostomy	3	1
Ureterolithotomy	2	2
Suprapubic cystostomy	8	3
Diverticulectomy	0	1
Bladder repair	0	1
Extrophy of bladder	0	1
Total	25	17

TABLE V
PENILE SCROTAL SURGERY

Operations	Year	
	1984	1985
Circumcision	47	39
Dorsal slit	1	10
Hypospadias surgery	2	4
Priapism	1	0
Balanitis with abscess — I & D	1	0
Excision cyst of spermatic cord	1	0
Vasectomy	3	0
Orchidectomy	6	5
Orchidopexy	3	5
Hydrocoele	3	15
Testicular torsion	2	0
Scrotal hemangioma — scrotoplasty	1	0
Testicular biopsies	1	0
Haematocoele / Scrotal abscess	1	2
Varicocoele	0	2
Scroto-penile trauma	3	1
Total	91	112

Pre-operative cystourethroscopy was found to be very useful before performing urethral or bladder surgery. I must stress that it is a very essential step and must not be omitted at any cost. I am sure that a number of open prostatectomies are still being done without a preceding cystourethroscopy. There were many occasions where we found meatal stenosis, urethral strictures or urethral calculi as a cause of acute urinary retention, which was thought to be due to prostatomegaly.

Large vesical calculi were removed transvesically. However, smaller stones, especially the softer variety were easily crushed with a lithotrite under vision and removed endoscopically. At the same time, the cause of the outlet obstruction, be it prostatomegaly or urethral stricture, could also be dealt with.

Urethral strictures were usually cut with an optical urethrotome using a cold half-moon knife. If the stricture was mild or short, it was usually dilated by bouginage.

T1 or T2 bladder tumours were usually resected transurethrally (TURBT) and followed up by regular check cystoscopies. In the two years of this study, we had more T3 or T4 tumours which were either debulked or biopsied and followed by radiotherapy. There were two occasions when a patient was posted for TURP and was found to have concomitant bladder cancer.

Endoscopic methods were also used to treat bladder neck stenosis, resection of an ureterocoele, cutting off the uretero-vesical junction to facilitate removal of a stone impacted at this junction, and to remove stones in the lower one-third of the ureter using the dormia basket.

Endoscopic techniques were used in about 56% of all our urological operations. Only about 8% of operations were performed upon the kidney, ureter or bladder. This does not truly portray the spectrum of our urological diseases, as many of our patients with kidney, ureteric or bladder problems refused to undergo any conventional operative surgical procedures.

CONCLUSION

Endoscopic techniques in urology have a definite edge over conventional methods in dealing with common diseases of the lower urogenital tract. Although this is the realm of the urologist, in most government hospitals in Malaysia, the general surgeons can definitely improve the urological services by acquiring skills in endoscopic urology.

At present, the surgical training programme for fellowship candidates provides very little exposure to urology in general, and endoscopic urology in particular. Thirteen per cent of all surgical operations performed were for urological disease. Instead of posting an accredited urologist to all these hospitals, it is my opinion that all general surgeons be given an opportunity to master the basic skills of endoscopic urology. Thus, most urological problems can be handled adequately at state levels, both to the relief of the overburdened Institute of Urology, as well as to the family of the patients.

A word of caution, however, in that endoscopic urology should be mastered under close supervision of an accredited urologist over a stipulated period of time. Endoscopy in untrained hands can be a very lethal weapon.

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