JAMC, Vol. 6, No. 2, 1993

PROSTATECTOM Y IN A GENERAL SURGICAL UNIT; CHANGING TRENDS

Syed Sultan, Rashid Ahmed, Irfan-ud-Din Khattak, Zaheer Qureshi, Ashfaq Ahmed

ABSTRACT:

This study compares the results of 104 consecutive transurethral and 61 consecutive open prostatectomies, performed in a General Surgical Unit in a District Hospital. The indication for surgery was acute retention in 65% of cases and prostatism in 35%. The mean post-operative stay was six and a half days for T.U.R. and fourteen and a half days for open prostatectomies.

INTRODUCTION:

Over 80% of males aged 50-60 years and older have some degree of bladder out-let obstruction, secondary to benign prostatic Hyper-plasia. According to some studies, at least 10% of adult male population undergo prostatic surgery [2,3] while others estimate that 20-25% of males will eventually undergo prostatic surgery.[4]

The indications for prostatectomy arc still highly controversial. Leaving aside the absolute indications (Acute retention, Azotemia, Gross Haematuria, Recurrent Urinary Tract Infections and Bladder Calculi), the question of "which patients arc candidates for surgical intervention?" is still debatable.[10] When one refers to "subjective criteria", one is referring to symptoms. Although patients seek help for symptoms, and after surgery, more than 85 % of patient's experience relief of symptoms, yet symptoms alone should not be used to assess the severity of B.P.H.[12] This is because other conditions including urinary tract infections, diverticula, bladder stones, and neurogenic bladder dysfunction can all present with symptoms similar to B.RH.

The international consensus committee meeting in Paris has agreed to use the international prostate symptom score (I-P.S.S.), and quality of life assessment, developed by American Urological Association (A.U.A.) measurement committee, as the official worldwide symptoms assessment criterion for B.P.H. In the I-P.S.S., each patient is asked [7] questions and the answers are assigned points from 0-5. Total score ranges from 0-35 (Asymptomatic-very symptomatic). In assessment of the quality of life, each patient is asked a single question and answer is assigned points from 0-6. (Delighted-Terrible)

Digital Rectal Examination is not reliable, but when combined with cystoscopy, its accuracy is

---

From Ayub Medical College, Abbottabad
SYED SULTAN, MBBS, FRCS (Ed), Prof. &Head of Surgical "B" Unit.
RASHID AHMED, MBBS, FRCS (Ed), FRCS (London), Associate Professor, Department of Surgery.
IRFAN-UD-DIN KHATTAK, MBBS, Medical Officer.
ZAHEER QURESHMBBS, Registrar.
ASHFAQ AHMED, MBBS, Medical Officer.

improved.[8] Other investigations like I.V.U., Abdominal ultrasound, how of urine, trans rectal ultrasound (TRUS), and the more sophisticated investigations including C.T. Scanning, computed urodynamic, M.R.I. and others arc to be used on the discretion of the Consultant Surgeon. Among the many available treatments trans urethral resection (T.U.R.) is the operation of choice for all except the largest glands, and open prostatectomy (Trans Vesical) is the procedure of choice for the large glands.[11]

Other alternatives include Trans Urethral Incision of the prostate (T.U.I.P.), balloon dilatation, Alpha-blockers, Androgen ablation, and watchful waiting. T.U.I.P. was first described by Guthrie.[13] The technique is simple and short and especially attractive for young men (below 50) with small prostrates, because of rescued risk of retrograde ejaculation.[14] Long-term follow-ups after T.U.I.P. is scanty. Similarly, data on long term effectiveness of medical therapies is still awaited.

Trans urethral resection of the prostate is rapidly replacing open prostatectomy in the third world. Limited Specialized urological services put the responsibility of T.U.R. on the General Surgeon, also.[5] This study was designed and performed to assess the post-operative course of patients undergoing endoscopic versus open prostatectomies, and to reaffirm the position of General Surgeon in Prostatectomy.

PATIENTS AND METHODS:

Between 1986 and 1991, 165 prostatectomies were performed by two consultant surgeons and their junior staff. The indication for surgery was acute Retention in 65% and prostatism in 35% of patients. This is in contrast to the developed nations where majority of the cases arc operated for prostatism.[5] All the patients were admitted prior to surgery.

Complete history and general physical examination was done and Digital Rectal Examination (D.R.E.) was routinely performed. Bimanual examination was similarly routinely performed under anaesthesia, before operation. No prostatic enlargement was felt in 5% of patients among whom in 33% it was felt to be enlarged on bimanual examination under anaesthesia. Cystoscopy was routinely performed before TUR and all findings recorded. 80% patients showed mild to moderate enlargement of prostate, (20-80 grams). While in the rest of the cases, prostate was felt to be grossly enlarged (more than 80 grams) (15%). 70% of patients with mild to moderate enlargement on Digital Rectal Examination were subjected to T.U.R., while all the patients in whom prostate was not felt to be enlarged on DRE, were subjected to T.U.R. only 2% of patients with gross enlargement of prostate (above 80 grams) were operated endoscopically, while the rest were operated by the open method. Symptoms, DRE and Cystoscopy findings (in patients scheduled for T.U.R.) were taken into consideration, while making decision regarding surgery. It is to be mentioned that all cases of T.U.R. were performed by Senior Consultant, while, among the open prostatectomies 50% were performed by Registrars/Residents.

Pre-operative routine tests included Blood Urea, Sugar, Complete picture, Urinalysis, and chest and abdominal radiographs (K.U>B.). Other investigations like I.V.U., scrum acid phosphatase, serum creatinine, E.C.G. and urine culture were done where necessary. 41% of the patients were aged 60-69 years, 21% were aged 50-59 years, while age ranged from 42-90 years.

RESULTS AND COMPLICATIONS:

Hospital Stay and Expenditure:

The average stays for patients who underwent T.U.R. was 6.5 days as compared to 14.7 days for open prostatectomies. On an average, the T.U.R. patients needed 10 bags of saline for igation and one pint of blood in 28% cases, while open prostatectomies needed 46 bags of Normal Saline and one pint of blood in 49% and 2 pints of blood and 29% of eases. While 3% patients needed more than 2 pints of blood.

COMPLICATIONS:

1.6% of patients who underwent open surgery expired post operatively, as compared to 3% T.U.R. eases. Other complications including clot retention, hemorrhage, and infection occurred in 23% of cases of T.U.R. and 24.50% of cases of open prostatectomies. In addition, suprapubic leak occurred in 11.5% of cases of open surgery, but closed in 100% of cases, by conservative management. Intraperitoneal leak occurred in 3 eases of T.U.R. and proved fatal in 2 eases. Less than 3% needed a Re-Cystoscopy and Re T.U.R. after endoscopic resection.

DISCUSSION:

Specialist urological services are limited and the demand for such specialised treatment exceeds the available resources, even in the West[5]. The general surgeon with an interest in urology provides an essential service. T.U.R. is a technically difficult operation and needs a senior operator. Open prostatectomy is easier to perform. In this series, 63% of the patients undergoing prostatectomy were operated Trans-Urethrally almost similar to General Surgical Units of the West.5 All T.U.R. were performed by performed by Registrars and Residents. In specialized Urological Units in developed countries T.U.R. is performed in 80-95% of eases.[11] Acute retention is still the major indication for surgery (65%) as compared to West where prostatism is the indication for surgery in 61% cases.[5] It is estimated that about 10% of patients will develop acute urinary retention, and the precipitating cause is thought to be prostatic infarction.[1516] Prostatectomy can adversely affect sexual function, but data on this is lacking in our area, as patients do not correctly answer such questions. It appears that delaying surgery in patients with prostatism does not cause any harm.[78]

The post-operative hospital stay, for patients who underwent T.U.R. was significantly less than those undergoing open prostatectomies. The mortality of T.U.R. was slightly higher in our study as compared to open surgery. This was due to technical reasons and difficulty in the procedure. In another series of 200 consecutive prostatectomies, conducted in the same hospital, none was operated trans-urethrally.[9]

The results suggest that transurethral resection of prostate is the treatment of choice for benign disease of the prostate except when the gland is very large, or associated with some other pathology, that makes T.U.R. technically inappropriate. Probably the most valid indication for open

prostatectomy in our circumstances is lack of expertise and equipment which is quite expensive to buy and maintain in a working order.

REFERENCE

1. Stephen, Z., Alan, J., Wein, Predericil, C. Monson & Robert M. Levin. The effect of Infravesical obstruction on the bladder. Problems in Urology. Vol. 5 No. 3 1991, P-357-67.
2. 2 Lytton, B., Emery, J.M. The incidence of benign prostatic. Harward B.M., Obstruction, Journal of Urology, 1968; 99: 639-45.
3. Graham, A.G. Scottish prostrates: a 6-year review. British Journal of Urology, 1977; 49: 679-82.
4. Brikhoff, J.D. Natural History of B.P.JI. Edited by Hinman Jr. F. New York. 1983, 5.
5. Morris, G.E., Talc, J.J., Leach, R.D. The changing trend in prostatectomy in a Distt. General Hospital. Annal of Royal College of Surgeons of England. Vol. 67 1985, P-361-62.
6. The International Prostate symptom score (l-PSS) & quality of life Assessment. Proceedings of the International Consultation on Benign Prostatic Hyperplasia (B.P.H.) Paris, June 26-27, 1991. Edited by A.T.K. Cocket, Asoy., Cuatelain C., cl al.
7. Ball, A.J., Fereley, R.C.L. and Abrams, P.H. The Natural History of Untreated Prostatism. British Journal of Surgery, 1981; 53: P.613-16.
8. Malone, P.R., Cook, A., Edmonson, R., Gill, M.W. and Shearer, R.J. British Journal of Urology. 1981, 61-P.234-38.
9. Ahmed, Rashid and Mohammad, Gul. Prostatectomy in a District General Hospital. Journal of Pakistan Medical Association, 1987, 37; 8: P.192-94.
10. Begun, Frank, P. Benign prostatic hyperplasia, subjective and objective criteria for trans-urethral resection of the prostate "Problems in urology." 1991,5; 3: P.397-404.
11. Hald, T. Surgical treatment of Benign prostatic hyperplasia. Prospective contemporary issues in managing prostatic disease. Vol. 1, No. 6: P.1-3.
12. Kirby, R.S. Functional Evolution of bladder outflow obstruction due to Benign prostatic hyperplasia. Prospective. Contemporary issues in managing prostatic disease. 1991. Vol. 1; No. 5: P.1-4.
13. Guthrie, G.J. On the Anatomy and disease of the neck of the bladder and urethra. London, Burgess and Hall, 1834.
14. Blarias, Jerry, G., Chancellor., Michael, B. Trans-urethral incision of the prostate, An alternative to prostatectomy. Problems in urology, 1991, Vol. 3 No. 5: 412-16.
15. Craigen, A. A., I Hickling, J.B., Saunders, C.R.G., Carpenter, R.G. Natural history of prostatic obstruction: a prospective survey. J. Royal College of General Practitioners, 1969; 18: 226.
16. Spiro, L.H. Labay, G., Orkin, L.A. Prostatic infarction, role in acute urinary retention. Urology, 1974, 3: 345.