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STUDY TO DETERMINE THE EFFICACY OF BLADDER NECK INCISION VERSUS TRANSURETHRAL RESECTION OF THE PROSTATE TO RELIEVE BLADDER OUTLET

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Abstract:

Aim: *TUR has been identified as the preferred treatment to remove bladder outlet obstruction in men, but bladder neck incision (BNI) is an acceptable alternative when the gland is small. The aim of this study is to determine the efficacy of bladder neck incision versus transurethral resection of the prostate to relieve bladder outlet obstruction.*

Place and |Duration: *In the Urology Unit II of Jinnah Hospital Lahore for one-year duration from January 2019 to January 2020.*

Methods: *60 BNI / TUR cases were investigated (BNI = 35, TUR = 25). BNI was operated when the glands were less than 30 g and no malignancy was clinically suspected. The technique of our single incision is given. In BNI, the catheter's durability was shorter, and the result was satisfactory in terms of less infection, much lower need for blood transfusion, and need for control and additional surgery. BNI is technically simpler than TUR and is easy to learn and learn.*

Results and Conclusion: *Our results show that it is safe and effective for patients with acute retention, as well as those who are treated electrically, and is the preferred surgery for small benign prostate. In larger glands, BNI may not be desirable. In paired cases, this method provides better results and fewer complications than standard transurethral resection.*

Key Words: *transurethral resection, bladder neck incision, prostate.*

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INTRODUCTION:

TUR is generally considered the best treatment for symptomatic BPH in all major glands. However, TUR is a technically demanding procedure and inexperienced operators may not be able to achieve good results and low rate of complications reported by specialized urological units.

Bladder neck incision (BNI), originally defined by Bottini in 1887, and recently recommended by Edwards and Powell (1982) and Turner Warwick (1973), is a simple, fast and safe procedure for alleviating outflow obstruction when the prostate is small and benign.

Thirty-five patients received BNI between March 1985 and April 1987. The results and complications of these procedures were compared with 25 patients with larger benign glands treated by TUR at the same time.

MATERIAL AND METHODS:

This prospective was held at the In the Urology Unit II of Jinnah Hospital Lahore for one-year duration from January 2019 to January 2020. 60 men with obstruction of the BPH-related outlet have been treated endoscopically. Clinical examination, complete blood count, urea and electrolyte tests of all patients were analyzed. Uranalysis, urine culture and IVP, as well as residual urine and uroflowmetry was also done. The choice of surgical procedure was made after cystoscopy and bimanual examination under anesthesia. The criteria for the incision in the bladder neck were a small prostate (30 g or less) and a relatively short urethra. Patients with large prostates or long prostate were treated with TUR. When a malignant tumor was clinically suspected, the first procedure was limited to cystoscopy and prostate biopsy. Thirty-five men were treated by BNI and 25 men by TUR. BNI patients were younger than the TUR group (average age 70 years, range 51-85) (average age 57 years, range 30-75). Bladder neck incision was performed under epidural or spinal anesthesia. Patients were placed in the lithotomy position and examined bimanually and endoscopically. The decision to use BNI or TUR was based on the results of this review. Urethrotomy to 27 F. was
performed with an Otis urethrotome. A resectoscope was passed (sheath No.27 F), and using Storz diathermy knife (27040 F), a cut was made along the sulcus·in the 7 o'clock position from the right urethric orifce to the level of the verumontanum (left-handed person can do this incision in the 5 o'clock position from left urethric orifice to the level of the verumontanum more easily). Then two prostate tissue shavings were collected per cycle and sent for pathology. The resectoscope was removed and the three-way Foley 22F catheter was placed for urinary tract irrigation. In the TUR group, anesthesia was similar to that used for BNI. The technique used was the technique described by Blandy. After resection of the glands, three-way Foley 22F was placed and irrigation continued until the urine was usually pink for 24 hours.

After TUR, the catheter was usually removed on the second or third day after surgery when urine was removed. Urine was usually removed quickly after BNI and the catheter was removed as soon as possible after surgery, usually on the first day after surgery. Half-urine samples collected before surgery and after catheter removal were recorded. Broad spectrum pre-operative antibiotics were used in patients who had previous urinary tract infections or who came to the operating room with a fixed tube. Blood transfusions were performed at the theater at the discretion of the anesthesiologist and after surgery if the patient's hemoglobin concentration was less than 10 g / dl. The main complications are described in Table I. All patients were evaluated 8 weeks after discharge. During this time, continuity was assessed and, if necessary, in further control activities. Our definition of urinary incontinence included minor degrees of incontinence and moisture. The number and nature of additional procedures performed were recorded. Uroflowmetry was performed 8 weeks after surgery and urine is now measured.

RESULTS:

The rates of preoperative urinary tract infection were similar in both groups (BNI 14.3%, 16% TUR). There was a slight difference after surgery (17.1% BNI, 24.2% TUR). No BNI patient required a blood transfusion. Three patients were transfused during TUR, one postoperative death occurred after TUR due to acute myocardial infarction one day after surgery (Table I). No patient died after BNI.

Table I. Complications

	BNI	TUR
No. of patients	35	25
Post-operative deaths	0	1
Clot retention requiring return to theater	0	1
Perforation and extravasation requiring return to theater	0	1
Septicemia	1	2
Incontinence after 1 year	1	0
Further procedure	0	3
Orchitis	1	0
Stricture	0	0
Pneumonia	1	0
Total	3(6.28%)	8(32%)

The details of the number of days of post-operative catheterization and hospital stay in each group are given in Table II.

Table II. Clinical Details

	BNI	TUR
No. of patients	35	25
Age range,	30-75	51-85
(mean), years	(75)	(70)
Post -operative catheter stay (mean days)	2	5
Transfusion	0	3
UTI pre-op.	5(14.3&)	4(16%)
UTI post-op.	6(17.1%)	5(20%)
Uroflowmetry pre-op. (mean Max. flow rate)	7 ml/s	8 ml/s
Uroflowmetry post-op. (mean Max. flow rate)	18 ml/s	15 ml/s
Mean residual urine Pre-op.	150c	200c
Mean residual urine Post-op.	50cc	80cc

Until now, no additional procedure was required for any patient who was initially treated with BNI. Three patients initially treated with TUR required additional surgery, one had BNI due to bladder neck narrowing, and two patients had additional TUR due to regrowth or incomplete resection.

DISCUSSION:

Since the acceptance criteria for the two groups are completely different, this series cannot be a random sample. However, it determines the results of transurethral resection and complications of the bladder neck incision, which is performed in patients with larger prostates in the same unit and over the same period. TUR results can be compared to two major series of a London hospital. Bladder neck incision is technically simpler than TUR and is easy to learn and learn. We believe that the results indicate that it is a safe and effective treatment for outlet obstruction in patients with mild benign prostatic hyperplasia. In this series, BNI proved equally satisfactory for patients with acute retention and electrically treated patients. Turner-Warwick and Delaere et al. We use the single incision technique as opposed to the double incision suggested by. The importance of the single-cut technique is a long, deep cut that extends along its entire length into peripheral fat. The urethral catheter was removed as soon as possible one day after surgery. The length of hospital stay for BNI patients was significantly shorter than for TUR.

There were no sexual dysfunctions comparable to the results of Blanda and Orandi in 40 patients who received unilateral BNI treatment in our patients after BNI. However, our general data shows that BNI appears comparable to TUR in alleviating obstruction due to small benign prostate, provided the case selection is correct and the procedure is performed as described.

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