The case study of pre-operative transurethral resection of benign prostatic hyperplasia

Abstract

Objective: The case study of pre-operative transurethral resection of benign prostatic hyperplasia

Method: The total of 987 patients with BPH in our hospital from September 2016 to December 2019 was selected, all of whom underwent TURP, and the rate and reason for reoperation of all patients were observed.

Results

Among the 987 BPH patients, a total of 46 cases underwent resection, and the rate was 4.66%; compared with patients with one operation, the amount of postoperative wound bleeding was greater than that of patients with one operation, and the incidence of urethral stricture and bladder neck contracture was higher than that of patients with one operation. Statistically significant (P<0.05).

Conclusion

The re-operation rate of BPH patients after TURP is low, but there are still some patients with recurrence. The main reasons Including urethral stenosis, residual glands, postoperative wound bleeding, and bladder neck contracture. At the same time, implementing targeted preventive measures in combination with the above reasons can effectively reduce the risk of repeated electrocardiography. Ratio of surgical resection and improved long-term prognosis.

Key words:BPH; TURP; cause analysis; ratio;

Introduction

Benign prostatic hyperplasia (BPH), a common cause of lower urinary tract symptoms in the elderly male population, has been conventionally treated by transurethral resection of the prostate (TURP). The gold standard surgical management for benign prostate hypertrophy (BPH) to date is still transurethral

resection of the prostate (TURP) [1] .Transurethral resection of the prostate (TURP) as a current treatment Primary approach for benign prostatic hyperplasia (BPH), with operative time Short, small incision, short hospital stay, fast postoperative recovery, and other significant advantages, but studies have found that some patients are prone to hyperplasia again after surgical treatment. Testosterone was recognized to increase the prostate volume especially in testosterone replacement therapy. Body, recurrence of symptoms of lower urinary tract obstruction, increase the risk of secondary surgery,

1 Materials and methods

1.1 General information Selected from September 2016 to December 2019

There were 987 BPH patients in our hospital, aged 51–79 (65.08–4.18) years old; Quality index 19.2–28.3 (22.96±1.05) kg/m2; of which urinary retention. There were 298 cases with a medical history, accounting for 30.19%, 100 cases with a history of gross hematuria, accounting for 10.13%; and 77 cases of bladder stones, accounting for 7.80%.This study complies with the relevant requirements of the Declaration of Helsinki of the World Medical Association, and was approved by our hospital's Ethics committee.

1.2 Inclusion and exclusion criteria Inclusion criteria: (1) Informed and signed a contract

(2) All conform to the "Benign Prostatic Hyperplasia/Lower Urinary Tract Symptomatic Drug Treatment Consensus (2016)." [3] middle BPH diagnostic criteria; (3) BPH was confirmed by digital rectal examination, urine routine examination, or B-ultrasound examination; (4) compliance with the surgical indications Exclusion criteria: (1) combined liver, kidney, heart, lung, and other important organ lesions; (2) those with surgical contraindications; (3) those with blood system or immune system diseases; (4) Existing organic lesions (5) Existing mental illness or poor compliance with treatment make you unable to complete this task, researcher.

1.3 Methods The clinical data of BPH patients who underwent TURP were collected.

Data, mainly covering: age of illness, age of first operation, pre-prostate posterior diameter, prostate protruding into the bladder, serum prostate-specific antigen (PSA), The resected weight of prostate tissue in the first operation, operation time, postoperative wound bleeding, incidence of urethral stricture, incidence of bladder neck contracture, most Large urine flow rate Qmax (ml/s) and bladder

capacity (ml), and using Chinese How Net, Wan Fang, VIP, and other databases to search for relevant BPH patients again, Literature and data on the reasons for implementing TURP.

1.4 Clinical observation indicators (1) Statistics on the ratio of re-performed resection

Rate. (2) Analyze the influencing factors of the re-implementation of resection.

1.5 Statistical processing was carried out using SPSS 25.0 statistical software

The measurement data are represented by x±s, and the t test is performed; the count data are expressed as a case (percentage), the $\chi 2$ test was performed. $P<0.05$ means there is a statistical difference computational significance.

2 results

2.1 The rate of re-resection of 987 BPH patients, a total of

There were 46 cases of re-resection, the rate was 4.66%.

2.2 Influencing factors for re-operation of resection Patients with secondary surgery

The weight of prostate tissue resection for the first operation is lighter than that of patients with one operation. Postoperative wound bleeding was greater than that of patients with one operation, urethral stricture and bladder neck. The incidence of contracture was higher than that of patients with one operation, and the difference was statistically significant ($P< 0.05$).

3 Discussions

TURP is applied to BPH patients, and although it can effectively improve symptoms and quality of life, data show that BPH patients relapse 12 months after surgery. The rate of performing TURP for the first time was 2.90%, 5.80% in 5 years, and 8 years in 8 years. As high as 7.40%, the long-term prognosis is poor. [4,5] Some scholars have pointed out that a Timely analysis of the reasons for the re-implementation of TURP in patients with BPH is needed. And implement needle breaking to minimize the wound area of the bladder neck; do not apply electric coagulation. The flow is too large and too long. At the same time, try to avoid Jing Fu, bladder neck. Applying too much electrocoagulation [7].

(3) Familiar with the implementation steps of TURP,

The Lobectomy is used to avoid incomplete prostate wounds, residual glands, etc.produce. (4) It is strictly forbidden to use force blindly when TURP enters the mirror. If you encounter resistance, you can operate under direct vision, and minimize the number of outer sheaths during the operation. In and out of the urethra and the number of rotations [8].(5) The anatomy should be accurately judged during the operation. In order to avoid blind cutting, try to cut the gland to the capsule [9].(6) Urinary tract infections should be actively controlled before and after surgery. (7) Postoperative selection and appropriate catheters should be used. It is strictly forbidden to use too-thick catheters. It should be too large, and emphasis should be placed on strengthening postoperative catheter monitoring and management [10]. (8) Postoperatively, patients with BPH should be given medication and dietary guidance and informed of their dietary the purpose, significance, and importance of following the principle of thick and thin collocation while emphasizing adequate rest and moderate exercise can affect the outcome of the disease and reduce the occurrence of reoperation. The importance of ratios

In summary,

After the resection of BPH patients after TURP, the operation rate is low, but there are still some patients with recurrence. The main reasons include urethral stricture, residual glands, postoperative wound bleeding, bladder neck contracture, At the same time, implementing targeted preventive measures in combination with the above reasons can effectively reduce the re-implementation of electrosurgical resection incidence rate, promote an improved long-term prognosis.Aggravate the suffering of patients [1, 2].Therefore, it is clear that the recurrence of BPH in patients after TURP the reasons for the first electrosurgical operation can effectively reduce the second operation to a certain extent. Operation rate. Based on this, 987 BPH patients were selected for this study to explore the rate and reasons for re-resection after TURP. See the table below.

Table 1.Attached table influencing factors of re-performed resection

One surgery patient (n=941)	t/χ2	P	Patients with secondary surgery(n=46)		
Age of illness (years)	65.12±4.01	64.29±3.15	1.383	0.167	
Age of first surgery (years)	68.96±2.87	69.03±3.15	0.161	0.872	
Prostate protrusion into bladder (cm)	2.02±1.38	2.19±1.47	0.813	0.416	
PSA (ng/ml)	8.41±3.97	8.22±4.01	0.317	0.752	
Prostate tissue resection for the first time In addition to weight (g)	28.49±9.38	24.13±6.12	3.119	0.002	
Operating time (h)	1.29±0.31	1.27±0.35	0.425	0.671	
Postoperative wound bleeding (ml)	11.02±1.85	23.59±1.49	45.362	0.000	
Prostate anteroposterior diameter (cm)	4.49±0.82	4.52±0.79	0.243	0..808	
Maximum urine flow rate Qmax (ml/s)	5.87±3.92	5.79±2.88	0.137	0.891	
Incidence of urethral stricture (%)	394（41.87）	39（84.78）	32.797	0.000	
Incidence of bladder neck contracture (%)	439（46.65）	42（91.30）	34.998	0.000	

Sexual therapeutic intervention can help avoid the risk of reoperation, improve long-term prognosis, and reduce the suffering of patients [6].

The present study found that the incidence of repeated TURP in patients with BPH reached 4.66%. In addition, this study also found that patients with secondary surgery .The weight of resected prostate tissue in patients with the first operation was higher than that in patients with the second operation. Mild postoperative wound bleeding was greater than that of patients with one operation, urethral stricture, and bladder The incidence of cystic neck contracture was higher than that of patients with one operation ($P<0.05$). visible Urethral stricture, residual glands, postoperative wound bleeding, and bladder neck contracture are the main reasons leading to repeat TURP in patients with BPH. Specific The reasons are as follows: (1) Urethral stricture: it usually occurs 24 weeks after TURP. Internally, the main manifestations are interrupted urination, incontinent urination, etc., the mechanism of which is related to the urinary tract infection, which was not effectively controlled before operation, and the current was too high during electric resection and coagulation during operation. Factors such as large size, rough mirror entry, improper application of the urinary catheter after the operation, and bleeding close (2) Bladder neck contracture: it mostly occurs 1–3 months after TURP.

Usually accompanied by clinical symptoms such as frequent urination, urgency, dysuria, acute urinary retention, etc. performance, and its condition was progressively exacerbated. The mechanism of its occurrence and gland weight Weight <30g, bladder neck obesity, and other factors are related. (3) Gland residual: good Occurred 12 weeks to 5 years after TURP, and was readmitted after TURP The main cause of the disease is the residual glands in the operation (jingfu two sides, beyond the seminal fossa and the neck of the bladder); cutting through the capsule of the prostate during the operation Bleeding; elderly and critically ill patients were treated with palliative channel surgery. (4) Postoperative wound bleeding: it usually occurs on the 14th to 31d postoperative day, and the cause is in the Medical diseases such as high blood pressure were not effectively controlled before the operation; Hemostasis, incomplete wounds, etc.; prostatic fossa wound infection; vigorous postoperative activities, etc.

Regarding the re-implementation of TURP for BPH patients, the first step should be to analyse the triggering reasons in detail and then combine the triggering reasons to implement a targeted precaution. Specific preventive measures: (1) Respond to the patient's age, disease, Make detailed inquiries about basic information such as history and gender, and create a personal file In this case, it is strictly forbidden to use anticoagulant drugs such as aspirin for 7 days before the operation, so as not to increase the risk of surgery. (2) For small prostate with neck hypertrophy in patients with TURP, the fibrous annulus of the bladder neck should be completely cut off.

Minimize the wound area of the bladder neck as far as possible, and do not apply electric coagulation.

The flow is too large and too long. At the same time, try to avoid Jing Fu and bladder neck electrocoagulation [7]. (3) Familiarise yourself with the implementation steps of TURP and use lobectomy to avoid incomplete prostate wounds, residual glands, etc. (4) It is strictly forbidden to use force blindly when TURP enters the mirror. If you encounter resistance, you can Operate under direct vision, and minimize the number of outer sheaths in and out of the urethra and the number of rotations [8]. (5) The anatomy should be accurately judged during the operation. In order to avoid blind cutting, in addition, try to cut the gland to the capsule [9]. (6) Urinary tract infections should be actively controlled before and after surgery. (7) Postoperative selection and appropriate catheters should be used. It is strictly forbidden to use too thick catheters. It should be too large, and emphasis should be placed on strengthening postoperative catheter monitoring and management [10].

(8) Postoperatively, patients with BPH should be given medication and dietary guidance, and informed of their diet. The purpose, significance, and importance of following the principle of thick and thin collocation, while emphasizing sufficient rest and moderate exercise can affect the outcome of the disease and reduce the occurrence of reoperation. The importance of ratios

Conclusion

The resection rate of BPH patients after TURP is low, but there are still some patients with recurrence. The main reasons Including urethral stricture, residual glands, postoperative wound bleeding and bladder neck contracture, and at the same time, implementing targeted preventive measures in combination with the above reasons can effectively reduce the re-implementation of the electrosurgical resection incidence rate and promote an improved long-term prognosis.

Consent

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

Ethical Approval:

As per international standard or university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

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