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### 【临床研究】

# 前列舒通胶囊与非那雄胺片联合经尿道前列腺等离子双极电切术治疗良性前列腺增生症疗效观察

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**摘要：目的** 探讨前列舒通胶囊、非那雄胺片联合经尿道前列腺等离子双极电切术(TUPKP)治疗良性前列腺增生症(BPH)的临床效果。**方法** 选择2019年1月至2022年6月漯河市第二人民医院收治的60例BPH患者为研究对象,根据治疗方法将患者分为观察组和对照组,每组30例。所有患者均行TUPKP治疗。观察组患者术前2周给予前列舒通胶囊和非那雄胺片,术后第2天继续口服前列舒通胶囊4周,非那雄胺片2周;对照组患者术前2周口服非那雄胺片,术后第2天继续口服非那雄胺片2周。对2组患者的手术时间、切除前列腺组织质量、术中出血量、术中冲洗量、术后冲洗量、术后冲洗时间、最大尿流率( $Q_{\max}$ )、膀胱残余尿(PVR)、国际前列腺症状评分(IPSS)、生活质量(QOL)评分进行比较。**结果** 2组患者的手术时间、切除前列腺组织质量比较差异无统计学意义( $P>0.05$ );观察组患者的术中出血量、术中冲洗量、术后冲洗量显著少于对照组,术后冲洗时间显著短于对照组( $P<0.05$ )。治疗前2组患者 $Q_{\max}$ 、PVR比较差异无统计学意义( $P>0.05$ );2组患者治疗后 $Q_{\max}$ 显著升高,PVR显著减少( $P<0.05$ );治疗后,观察组患者 $Q_{\max}$ 显著高于对照组,PVR显著少于对照组( $P<0.05$ )。治疗前2组患者IPSS、QOL评分比较差异无统计学意义( $P>0.05$ );2组患者治疗后IPSS、QOL评分显著低于治疗前( $P<0.05$ );治疗后,观察组患者IPSS评分、QOL评分显著低于对照组( $P<0.05$ )。**结论** BPH患者TUPKP手术前后联合应用前列舒通胶囊和非那雄胺可显著减少术中出血量、冲洗量和术后PVR,提高术后 $Q_{\max}$ ,改善患者生活质量。

**关键词:** 良性前列腺增生症;前列舒通胶囊;非那雄胺;经尿道前列腺等离子双极电切术

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# Effect of *Qianlie Shutong* capsule and finasteride tablets combined with transurethral bipolar plasma kinetic prostatectomy in the treatment of benign prostatic hyperplasia

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**Abstract: Objective** To investigate the clinical effect of *Qianlie Shutong* capsule and finasteride tablets combined with transurethral bipolar plasma kinetic prostatectomy (TUPKP) in the treatment of benign prostatic hyperplasia (BPH).

**Methods** Sixty patients with BPH admitted to Luohe Second People's Hospital from January 2019 to June 2022 were selected as the study subjects, and the patients were divided into observation group and control group according to the treatment methods, with 30 patients in each group. All patients were treated with TUPKP. The patients in the observation group were treated with *Qianlie Shutong* capsule and finasteride tablets for two weeks before operation, and continued to take *Qianlie Shutong* capsule for four weeks and finasteride tablets for two weeks from the second day after operation. The patients in the control group were treated with finasteride tablets for two weeks before operation and continued to take finasteride tablets for two weeks from the second day after operation. The operation time, the mass of excised prostate tissues, intraoperative bleeding, intraoperative flushing fluid volume, postoperative flushing fluid volume, postoperative flushing time, maximum urine flow rate ( $Q_{max}$ ), postvoid residual urine (PVR), international prostate symptom score (IPSS) and quality of life (QOL) score of patients were compared between the two groups. **Results** There was no significant difference in the operation time and the mass of excised prostate tissues of patients between the two groups ( $P > 0.05$ ). The intraoperative bleeding volume, intraoperative and postoperative flushing fluid volume of patients in the observation group were significantly less than those in the control group, and the postoperative flushing time of patients in the observation group was significantly shorter than that in the control group ( $P < 0.05$ ). There was no significant difference in the  $Q_{max}$  and PVR of patients between the two groups before treatment ( $P >$

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0.05). The Qmax increased and the PVR decreased significantly after treatment in the two groups ( $P < 0.05$ ). After treatment, the Qmax of patients in the observation group was significantly higher than that in the control group, the PVR was significantly lower than that in the control group ( $P < 0.05$ ). There was no significant difference in the IPSS and QOL score of patients between the two groups before treatment ( $P > 0.05$ ). The IPSS and QOL score of patients in the two groups after treatment were significantly lower than those before treatment ( $P < 0.05$ ). The IPSS and QOL score of patients in the observation group were significantly lower than those in the control group after treatment ( $P < 0.05$ ). **Conclusion** The combination of *Qianlie Shutong* capsule and finasteride before and after TUPKP can significantly reduce intraoperative bleeding, flushing fluid volume and postoperative PVR, increase postoperative Qmax, and improve QOL of patients with BPH.

**Key words:** benign prostatic hyperplasia; *Qianlie Shutong* capsule; finasteride; transurethral bipolar plasma kinetic prostatectomy

良性前列腺增生症(benign prostatic hyperplasia, BPH)是泌尿外科常见疾病之一,经尿道前列腺电切术是治疗 BPH 的“金标准”,具有创伤小、手术时间短、患者恢复快、疗效确切等优点,已被临床广泛应用,但术中、术后出血仍是影响患者恢复的主要因素,无论是术中或术后给予止血药,效果均不满意。非那雄胺属于 5 $\alpha$ -还原酶抑制剂,可阻断前列腺组织中双氧睾酮向睾酮转化,从而抑制前列腺组织细胞增殖,促进前列腺细胞凋亡,缩小增生的前列腺体积,改善尿流及前列腺增生症状,是治疗前列腺增生的一线药物。近年来,传统中医药有了快速发展,中医上讲前列腺增生症属于湿热淤阻,前列舒通具有温肾化气、清热通淋、活血化瘀、散结止痛等作用,在 BPH 的治疗中显示出较好的疗效<sup>[1-2]</sup>。有研究显示,围手术期应用非那雄胺能够减少出血<sup>[3]</sup>。本研究旨在探讨前列舒通胶囊、非那雄胺片联合经尿道前列腺等离子双极电切术(transurethral bipolar plasma kinetic prostatectomy, TUPKP)治疗 BPH 的临床效果。

1 资料与方法

**1.1 一般资料** 选择 2019 年 1 月至 2022 年 6 月漯河市第二人民医院泌尿外科收治的 BPH 患者为研究对象。病例纳入标准:(1)最大尿流率(maximum urine flow rate, Qmax)  $\leq 10 \text{ mL} \cdot \text{s}^{-1}$ ,膀胱残余尿(postvoid residual urine, PVR)  $> 50 \text{ mL}$ ,总前列腺特异性抗原(total prostata-specific antigen, tPSA)  $< 4 \mu\text{g} \cdot \text{L}^{-1}$ ;(2)直肠指诊:前列腺增生,中央沟变浅或消失,表面光滑、质韧、无明显结节;(3)经直肠前列腺彩超测定前列腺体积为 30 ~ 100 mL;(4)符合手术指征,均行 PKRP 治疗;(5)患者依从性较好。排除标准:(1)膀胱逼尿肌无力;(2)患有严重心、肝、肾、脑等功能障碍且无法耐受手术者;(3)术中、术后

血压  $> 160/100 \text{ mm Hg}$  (1 mm Hg = 0.133 kPa); (4)合并急性前列腺炎、尿路感染、尿道狭窄者;(5)严重凝血功能障碍者。本研究共纳入 BPH 患者 60 例,根据治疗方法将患者分为观察组和对照组,每组 30 例。观察组:患者年龄 55 ~ 90 (69.93  $\pm$  9.99) 岁,前列腺体积 55 ~ 90 (69.00  $\pm$  7.97) mL,国际前列腺症状评分(international prostate symptom score, IPSS) 13 ~ 35 (23.97  $\pm$  6.26) 分,生活质量评分(quality of life, QOL) 4 ~ 6 (5.00  $\pm$  0.79) 分, Qmax 3 ~ 9 (6.03  $\pm$  1.90) mL  $\cdot \text{s}^{-1}$ ,膀胱残余尿量(postvoid residual urine, PVR) 59 ~ 425 (151.57  $\pm$  92.72) mL。对照组:患者年龄 56 ~ 91 (69.77  $\pm$  9.38) 岁,前列腺体积 56 ~ 89 (68.80  $\pm$  7.78) mL, IPSS 14 ~ 34 (24.43  $\pm$  5.40) 分, QOL 评分 4 ~ 6 (5.07  $\pm$  0.78) 分, Qmax 3 ~ 9 (5.90  $\pm$  1.82) mL  $\cdot \text{s}^{-1}$ , PVR 57 ~ 427 (152.33  $\pm$  92.43) mL。2 组患者的年龄、前列腺体积、术前 IPSS 评分、QOL 评分、Qmax 及 PVR 比较差异无统计学意义( $P > 0.05$ ),具有可比性。本研究获得医院医学伦理委员会审核批准,患者或家属知情同意并签署知情同意书。

**1.2 治疗方法** 患者行连续硬膜外麻醉,取截石位,使用等离子双极前列腺电切镜(珠海市司迈科技有限公司)行 TUPKP(电切功率 120 W,电凝功率 100 W),术中应用生理盐水进行膀胱低压冲洗,以精阜为标记,依次切除前列腺的中叶、左右侧叶及顶叶后修整尖部,冲洗凝血块及前列腺碎块组织,术后留置三腔导尿管,采用生理盐水连接三腔导尿管进水通道持续冲洗膀胱。观察组患者术前 2 周口服前列舒通胶囊(保定天浩制药有限公司,国药准字 Z20027140),每次 3 粒,每日 3 次;非那雄胺(天方药业有限公司,国药准字 H20040519) 10 mg,每日 1 次,口服;术后第 2 天继续口服前列舒通胶囊 4 周、非那雄胺 2 周。对照组患者术前 2 周口服非那雄胺 10 mg,

每日1次,术后第2天继续口服非那雄胺2周。

**1.3 观察指标** (1)手术时间、切除前列腺组织质量、术中出血量、术中冲洗量、术后冲洗量、术后冲洗时间。(2)Q<sub>max</sub>、PVR:分别于治疗前、治疗后检测患者的Q<sub>max</sub>和PVR。(3)IPSS评分:分别于治疗前、治疗后对患者的症状进行IPSS评分,IPSS总分0~35分,分数越高表明症状越严重。(4)QOL评分:分别于治疗前、治疗后对患者的生活质量进行评分,QOL评分满分0~6分,分数越高表明生活质量越差。

表1 2组患者围手术期指标比较

Tab.1 Comparison of the perioperative indexes of patients between two groups								( $\bar{x} \pm s$ )
组别	n	手术时间/min	切除前列腺组织质量/g	术中出血量/mL	术中冲洗量/L	术后冲洗量/L	术后冲洗时间/h	
对照组	30	65.13 ± 12.45	31.23 ± 8.90	73.53 ± 12.57	18.30 ± 2.39	13.72 ± 1.70	30.17 ± 3.39	
观察组	30	65.30 ± 11.68	32.17 ± 9.44	55.30 ± 18.63	14.60 ± 2.33	7.77 ± 1.87	21.33 ± 3.87	
t		0.054	0.379	4.443	6.068	12.710	9.397	
P		>0.05	>0.05	<0.05	<0.05	<0.05	<0.05	

**2.2 2组患者Q<sub>max</sub>和PVR比较** 结果见表2。治疗前2组患者Q<sub>max</sub>、PVR比较差异无统计学意义( $P>0.05$ );2组患者治疗后Q<sub>max</sub>显著升高,PVR显著减少,差异有统计学意义( $P<0.05$ );治疗后,观察组患者Q<sub>max</sub>显著高于对照组,PVR显著少于对照组,差异有统计学意义( $P<0.05$ )。

表2 2组患者治疗前后Q<sub>max</sub>和PVR比较

Tab.2 Comparison of the Q <sub>max</sub> and PVR of patients between the two groups before and after treatment				( $\bar{x} \pm s$ )
组别	n	Q <sub>max</sub> /(mL · s <sup>-1</sup> )	PVR/mL	
对照组	30			
治疗前		5.90 ± 1.82	152.33 ± 92.43	
治疗后		13.50 ± 1.59 <sup>a</sup>	28.23 ± 5.78 <sup>a</sup>	
观察组	30			
治疗前		6.03 ± 1.90	151.57 ± 92.72	
治疗后		18.53 ± 2.10 <sup>ab</sup>	18.37 ± 7.51 <sup>ab</sup>	

注:与治疗前比较<sup>a</sup> $P<0.05$ ;与对照组比较<sup>b</sup> $P<0.05$ 。

**2.3 2组患者IPSS和QOL评分比较** 结果见表3。治疗前2组患者IPSS、QOL评分比较差异无统计学意义( $P>0.05$ );2组患者治疗后IPSS、QOL评分显著低于治疗前,差异有统计学意义( $P<0.05$ );治疗后,观察组患者IPSS、QOL评分显著低于对照组,差异有统计学意义( $P<0.05$ )。

表3 2组患者治疗前后IPSS和QOL评分比较

Tab.3 Comparison of the IPSS and QOL scores of patients between the two groups before and after treatment				( $\bar{x} \pm s$ )
组别	n	IPSS评分	QOL评分	
对照组	30			
治疗前		24.43 ± 5.40	5.07 ± 0.78	
治疗后		11.80 ± 1.58 <sup>a</sup>	2.80 ± 0.92 <sup>a</sup>	
观察组	30			
治疗前		23.97 ± 6.26	5.00 ± 0.79	
治疗后		7.67 ± 2.12 <sup>ab</sup>	1.47 ± 0.82 <sup>ab</sup>	

注:与治疗前比较<sup>a</sup> $P<0.05$ ;与对照组比较<sup>b</sup> $P<0.05$ 。

**1.4 统计学处理** 应用SPSS 19.0软件进行统计学分析,计量资料以均数±标准差( $\bar{x} \pm s$ )表示,两组间比较采用t检验, $P<0.05$ 为差异有统计学意义。

## 2 结果

**2.1 2组患者围手术期指标比较** 结果见表1。2组患者的手术时间、切除前列腺组织质量比较差异无统计学意义( $P>0.05$ );观察组患者的术中出血量、术中冲洗量、术后冲洗量显著少于对照组,术后冲洗时间显著短于对照组,差异有统计学意义( $P<0.05$ )。

## 3 讨论

近年来,BPH发生率呈现上升趋势,50岁以上男性为该疾病的好发群体,发病率为50%~88%,有手术适应证的患者应尽早手术,避免随着年龄增长而增加手术风险,甚至失去手术机会。目前,经尿道前列腺电切术是治疗BPH的首选方法,但由于BPH患者多为老年人,常合并多种慢性基础病,除了要严格把握适应证和禁忌证外,围手术期处理也尤为重要。前列腺增生的发病有赖于血液中的双氢睾酮,睾酮是雄激素在血液中的主要存在形式,90%的睾酮于前列腺基质细胞内被5-α还原酶催化而转化成生物活性更强的双氢睾酮,从而刺激前列腺增生。非那雄胺可以抑制睾酮向双氢睾酮转变所必需的5-α还原酶,进而降低前列腺内双氢睾酮水平,缩小前列腺体积,缓解BPH静力因素而改善临床症状。有研究显示,术前应用非那雄胺可以减少BPH术中及术后出血,改善尿流率,缩小前列腺体积<sup>[4-5]</sup>。非那雄胺可以抑制前列腺组织中微血管形成、前列腺细胞血管内皮生长因子产生和前列腺组织细胞增殖,促进前列腺细胞凋亡,从而减少BPH手术中及术后出血<sup>[6-7]</sup>。孙佰玲等<sup>[8]</sup>研究显示,术前应用大剂量非那雄胺(10 mg · d<sup>-1</sup>)可更显著减少术中及术后出血量。中医学认为,BPH属于本虚标实、肾虚血瘀,应以补肾化气、活血化瘀治疗为主<sup>[9]</sup>。前列舒通胶囊是由黄柏、泽泻、川牛膝、土茯苓、当归、虎耳草、马齿苋、赤芍、川芎、三棱、马鞭草、柴胡及甘草等组成,具有清热利湿、化淤散结、解毒抗菌、凉血止血、散瘀止痛等功能<sup>[10]</sup>。川牛膝、当归、赤芍、三棱、川芎具有通经活络、改善局部微循环、抑制泌尿

系感染及缓解腺体导管阻塞等功效;黄柏、泽泻、马齿苋、土茯苓具有清热解毒、利湿、抗菌消炎等作用;柴胡具有疏肝理气、促进水精输泄、气机调畅等作用。任钧国等<sup>[11]</sup>研究显示,前列舒通可以显著降低 BPH 大鼠前列腺组织中 bcl-2(抑制细胞凋亡因子)表达水平,从而抑制前列腺细胞增殖,促进前列腺细胞凋亡,发挥抑制 BPH 的作用。前列舒通胶囊还能降低前列腺组织中成纤维细胞生长因子、血管内皮生长因子及 bcl-2 的表达,抑制前列腺细胞增殖,并促进前列腺细胞凋亡,从而发挥抑制前列腺增生的作用<sup>[12-13]</sup>。伍星海<sup>[14]</sup>研究显示,前列舒通可以抑制前列腺细胞增殖,缩小前列腺体积。周树明等<sup>[15]</sup>研究显示,非那雄胺可以减少 PVR,提高 Qmax。本研究表明,观察组患者的术中出血量、术中冲洗量、术后冲洗量显著少于对照组,术后冲洗时间显著短于对照组,这可能与非那雄胺抑制前列腺组织中微血管形成、前列腺细胞血管内皮生长因子产生和前列腺组织细胞增殖以及前列舒通的化淤散结、解毒抗菌、凉血止血、散瘀止痛等功能有关。

本研究结果显示,2 组患者治疗后 Qmax 显著升高,PVR 显著减少,且观察组患者 Qmax 显著高于对照组,PVR 显著少于对照组。2 组患者通过 TUPKP 切除了增生的前列腺腺体,解除了增生腺体对尿道的挤压,减轻尿路梗阻程度从而促使更多尿液排出膀胱,非那雄胺联合前列舒通胶囊可通过抑制促进前列腺细胞增殖因子的表达而缓解患者前列腺增生,减轻下尿路梗阻,从而减少了 PVR,提高了 Qmax,改善了患者下尿路排尿症状。

本研究结果显示,治疗后 2 组患者 IPSS(是患者下尿路症状严重程度的主观反映,分值越高,症状越重)、QOL 评分(是了解患者对其目前下尿路症状水平伴随其一生的主观感受,其主要关心的是 BPH 患者受下尿路症状困扰的程度及是否能够忍受,因此又称困扰评分)显著低于治疗前,且观察组患者 IPSS、QOL 评分显著低于对照组,这与前列疏通联合非那雄胺极大改善患者下尿路排尿症状密切相关,且与前列舒通的清热利湿、化淤散结、解毒抗菌、凉血止血、散瘀止痛等功能密切相关。

综上所述,BPH 患者 TUPKP 手术前后联合应用前列舒通胶囊和非那雄胺片可明显减少术中出血和冲洗量,改善患者临床症状和生活质量。由于部分患者依从性较差,未能随访更长时间,以至于本研究未能针对 2 组患者的远期并发症进行统计学比较,故存在一定的不足。

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能的受损程度,降低患者并发症的发生风险,从而提升治疗效果,改善患者生活质量。

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