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## 中医多途径综合疗法治疗宫颈癌术后尿潴留的临床效果评价

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**摘要 目的:**评价中医多途径综合疗法治疗宫颈癌术后尿潴留的临床效果和安全性。**方法:**选择2013年12月至2016年9月我院收治的60例宫颈癌术后出现尿潴留症状的患者,按其意愿将其分为对照组(30例)与研究组(30例),对照组接受水流声诱导、盆底肌锻炼等常规治疗方法,研究组在对照组基础上加以中医多途径综合疗法,比较两组治疗前后中医症状症状积分、自主排尿功能恢复时间、膀胱残余尿量、尿路感染率等情况。**结果:**治疗前,两组排尿无力、小腹坠胀、倦怠乏力、腰膝酸软积分比较差异均无统计学意义( $P>0.05$ );治疗后,两组以上指标均较治疗前明显降低,且研究组小腹胀痛、倦怠乏力积分均明显低于对照组,差异具有统计学意义( $P<0.05$ );研究组自主排尿功能恢复时间、膀胱残余尿量均明显低于对照组,差异具有统计学意义( $P<0.05$ );研究组尿路感染率为6.78%,明显低于对照组(23.33%),差异具有统计学意义( $P<0.05$ )。**结论:**中医多途径综合疗法治疗宫颈癌术后尿潴留的疗效肯定,可明显缩短病程,并降低尿路感染发生率。

**关键词:**中医;宫颈癌;尿潴留;多途径综合疗法

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## Evaluation of the Effect of Multi-Channel Comprehensive Therapy of Traditional Chinese Medicine on the Cervical Cancer Patients with Postoperative Urinary Retention

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**ABSTRACT Objective:** To evaluate the effect and safety of multi-channel comprehensive therapy on the cervical cancer patients with postoperative urinary retention. **Methods:** From December 2013 to September 2016, 60 cases of cervical cancer patients with postoperative urinary retention were divided into the control group (30 cases) and the study group (30 cases) according to their intention. The control group was given water Acoustic therapy, pelvic floor muscle exercise and other conventional treatment, while the study group was given multi-channel comprehensive therapy on the basis of the control group, the changes of traditional Chinese medicine symptoms before and after treatment, independent urination function recovery time, bladder residual urine output, urinary tract infection rate were compared between the two groups. **Results:** There was no significant difference in the acraturesis, abdominal bulge, languid, soreness and weakness of waist and knees scores between the two groups before treatment ( $P>0.05$ ). After treatment, the acraturesis, abdominal bulge, languid, soreness and weakness of waist and knees scores of both groups were significantly decreased, and the abdominal pain and burnout scores were significantly lower in the study group ( $P<0.05$ ). The recovery time of urinary function and the residual urine volume of bladder were significantly lower than those of the control group ( $P<0.05$ ). The infection rate was 6.78% in the study group, which was lower than that of the control group (23.33%) ( $P<0.05$ ). **Conclusion:** Traditional Chinese medicine multi-channel comprehensive therapy could significantly shorten the course of disease and reduce the incidence of urinary tract infection in the treatment of cervical cancer patients with postoperative urinary retention.

**Key words:** Chinese medicine; Cervical cancer; Urinary retention; Comprehensive therapy

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### 前言

尿潴留是指膀胱充盈但尿液无法自行排出或膀胱无法自行排空,尿液残余量在100 mL以上,是宫颈癌根治术后发生率较高(7.5%~44.9%)的并发症之一<sup>[1,2]</sup>。临幊上,常规处理方法是

膀胱留置导尿、条件反射诱导排尿等<sup>[3,4]</sup>,但长时间导尿容易增加尿路感染风险,且还可能因常规方法无效而并发膀胱肌无力,从而发展为顽固性尿潴留,增加患者痛苦。近年研究表明术后尿潴留的发生与手术、疾病、年龄、心理、切口疼痛、术前未排空小便等多方面因素有关<sup>[5,6]</sup>,单一方法可能不易奏效,需做到

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多途径的综合干预。中医将尿潴留归于“癃闭”范畴，根据治病求本、辨证论治的思想，近年中医汤药及艾灸、针刺等特色疗法治疗尿潴留已逐渐在临床上流行起来，效果颇为满意<sup>[6,7]</sup>。本科采用中医多途径综合疗法治疗宫颈癌术后尿潴留症状，取得了较好的效果，现报道如下。

## 1 资料与方法

### 1.1 纳入及排除标准<sup>[8,9]</sup>

纳入标准：①有宫颈癌根治术史的宫颈癌患者；②术后6~8 h膀胱充盈，但尿液无法自行排出，点滴不畅或闭塞不通，留置尿管导尿，并伴小腹胀痛、倦怠乏力等症状；③签署知情同意书。排除标准：①既往有排尿困难史；②合并泌尿系统疾病及严重其它系统疾病；③有近期尿潴留治疗史。

### 1.2 一般资料

选择2013年12月至2016年9月60例患者，按其意愿将其分为对照组(30例)与研究组(30例)，对照组年龄38~58岁，平均( $47.3 \pm 5.4$ )岁，鳞癌24例，腺癌6例。研究组年龄38~58岁，平均( $47.3 \pm 5.4$ )岁，鳞癌21例，腺癌9例。两组间年龄等一般资料比较差异均无统计学意义( $P > 0.05$ )，具有可比性。

### 1.3 方法

**1.3.1 常规治疗方法** 对照组接受常规治疗方法：①水流声诱导排尿：在患者排尿时打开水龙头，以水流声刺激尿液排出；②盆底肌锻炼：指导患者术后4 d开始有规律地缩肛锻炼、排尿中断锻炼，以刺激神经反射弧，提高会阴部肌肉、臀部等的自主收缩功能。起初每次15 min，之后逐渐延长锻炼时间，每日3次；③膀胱区按摩：指导患者仰卧，顺时针按摩腹部、脐部、宫底等部位，力道由轻度到中度，同时轻柔按摩膀胱处的气海、关元、水道穴等穴位。

**1.3.2 中医多途径综合疗** 研究组在对照组基础上加以中医多途径综合疗法：①情志护理：宫颈癌术后出现尿潴留容易加重患者悲观绝望等消极情绪，此时应积极向其讲解尿潴留的发生原因及处理方法。同时主动与患者交流，尊重患者，关心患者，争取患者的配合；②中药内服：患者分型以肾气亏虚型为主，治则宜补肾益气通利，自拟方药用薏苡仁30 g、女贞子10 g、桑寄生10 g、猪苓10 g、黄芪30 g、桂枝10 g、怀牛膝10 g、白术10 g、扁蓄10 g、山药10 g、泽泻10 g、杜仲10 g、人参10 g、瞿麦10 g、茯苓10 g、泽兰10 g、石韦15 g等，每日1剂，分作2

次饮服；③艾灸：取关元、曲骨、气海、神阙、中极等穴，艾条点燃后放在上述穴位上约3 cm位置，以有热感但不灼热为度，每穴每次20 min，每日1次；④针刺：取肾俞、三阴交、足三里、天枢等穴，用补法，每穴留针30 min，每日1次；⑤耳穴贴压：取三焦、神门、膀胱、肾、肺等穴，局部耳穴消毒，将0.6 cm×0.6 cm的小方块胶布(含王不留行籽)贴在穴位上，以合适力度揉、捏、按穴位，以有酸、麻、胀感为度，每穴每次2 min，每日3次。所有患者均接受情志护理，中药内服、艾灸、针刺、耳穴贴压按意愿选择2~3项即可。

### 1.4 观察指标

**1.4.1 中医症状积分** 参照《中药新药临床研究指导原则》<sup>[10,11]</sup>，①排尿无力：排尿顺畅为0分；排尿稍有障碍，施加腹压后尿液可排净为1分；排尿困难，施加腹压后仍有尿不尽感为2分；排尿严重困难，施加腹压后仍无法排出尿液为3分。②小腹坠胀：无坠胀感为0分；偶有小腹坠胀感为1分；持续小腹坠胀感为2分；小腹坠胀严重，不可耐受为3分。③倦怠乏力：无倦怠乏力为0分；倦怠乏力程度轻微为1分；一般活动便出现倦怠乏力，勉强进行日常活动为2分；持续倦怠乏力，休息后亦无改善，无法进行日常活动为3分。④腰膝酸软：无为0分；腰膝酸软稍有感觉为1分；腰膝酸软较明显为2分；腰膝酸软严重为3分。

**1.4.2 膀胱残余尿量测定** 拔除尿管自主排尿后取平卧位，使用B超测定残余尿容积影像的横、纵、矢面的最大直径，三面最大直径的乘积的1/2即为残留尿量。残留尿量<100 mL即表示自主排尿功能恢复。

### 1.5 统计学方法

采用SPSS18.0统计软件分析处理本组数据，计量资料以 $\bar{x} \pm s$ 表示，行t检验，计数资料以率表示，行 $\chi^2$ 检验， $P < 0.05$ 表示差异有统计学意义。

## 2 结果

### 2.1 两组治疗前后中医症状症状积分比较

两组治疗前排尿无力、小腹坠胀、倦怠乏力、腰膝酸软积分比较差异均无统计学意义( $P > 0.05$ )，两组治疗后排尿无力、小腹坠胀、倦怠乏力、腰膝酸软积分均明显降低，且研究组小腹胀痛、倦怠乏力积分明显低于对照组，差异具有统计学意义( $P < 0.05$ )，见表1。

表1 两组治疗前后中医症状症状积分比较( $\bar{x} \pm s$ )

Table 1 Comparison of the symptoms and syndromes of TCM symptoms before and after treatment between two groups

Groups	Void urination		Belly bulge		Burnout weak		Waistache soft	
	Before treatment	After treatment						
Research group	2.55±0.91	0.81±0.32*	2.55±1.31	0.93±0.42*	1.86±0.91	0.41±0.62	2.16±0.88	0.91±0.44
Control group	2.56±0.74	1.01±0.82*	2.61±1.04	1.62±0.85*	1.85±0.77	0.93±0.52*	2.15±0.89	1.11±0.79*
P	0.803	0.218	0.684	0.000	0.768	0.000	0.583	0.230

Note: compared with this group before treatment,\*  $P < 0.05$ .

### 2.2 两组自主排尿功能恢复时间、膀胱残余尿量、尿路感染率比较

研究组自主排尿功能恢复时间、膀胱残余尿量均明显低于对照组，差异具有统计学意义( $P < 0.05$ )；研究组尿路感染率为

6.78%，低于对照组(23.33%)，差异具有统计学意义( $P<0.05$ )，见表2。

表2 两组自主排尿功能恢复时间、膀胱残余尿量、尿路感染率比较

Table 2 Comparison of the independent urination function recovery time, bladder residual urine output, urinary tract infection rate between two groups

Group	Independent urination function recovery time	Bladder residual urine volume	Urinary tract infection
Research group	7.93± 2.18	91.23± 17.49	2(6.78)
Control group	11.51± 3.11	181.80± 20.55	7(23.33)
P	0.000	0.000	0.018

### 3 讨论

宫颈癌根治术的手术范围广，子宫及周围组织被大范围切除，容易导致盆腔自主神经损伤，同时膀胱由于失去支撑而滑向骶骨窝，最终导致尿液滞留于膀胱而无法排出。而充盈状态又会加剧膀胱向骶骨窝处滑落，使尿滞留的程度进一步严重<sup>[13,14]</sup>。术后长时间留置导尿管，或反复拔插导尿管容易损伤尿道黏膜，从而增加尿路感染危险<sup>[16,17]</sup>。常规干预方法往往疗程较长，且对部分患者不奏效。近年中医汤药及艾灸、针刺等特色疗法治疗尿滞留已逐渐在临幊上流行起来，效果较好<sup>[18]</sup>。

祖国医学对尿滞留的认识早在《素问·宣明五气》中就有提及<sup>[19,20]</sup>：“膀胱不利为癃。”广泛性子宫切除与盆腔淋巴清扫术可影响膀胱、冲、任、督、带脉的气血通畅，膀胱是主要的病位，并牵连肾脏，膀胱受损，膀胱功能减退，膀胱与肾相表里，肾气亏虚，从而无力化气行水，终致排尿障碍<sup>[21,22]</sup>。因此，可运用补肾益气、化气利水的中药汤剂进行干预。本研究所用方剂中以女贞子、人参为君药，旨在补肾益气，并配以山药、白术、杜仲、桑寄生等增强补益肾气之功效，佐以薏苡仁、猪苓、瞿麦、泽泻、车前子等利水渗湿，桂枝温通阳气，达到化气利水的目的<sup>[23]</sup>。

近年研究表明针灸对尿滞留亦具有较好效果。祖国医学认为针刺可疏通经络，调理气血；现代研究认为，针刺可引起神经冲动有效刺激神经中枢，并通过各级神经中枢配合发挥作用<sup>[24,25]</sup>。艾灸是以艾绒燃烧产热引起皮肤发热而防治疾病的一种中医疗法，其操作简单，应用广泛<sup>[26]</sup>。《名医别录》有云：“艾味苦微温无毒，灸治百病。”祖国医学认为，艾灸可温经通络、散寒祛湿；现代医学认为艾灸可有效改善机体血液循环、调节机体免疫力<sup>[27]</sup>。取关元温经通络、行气活血；曲骨通利小便；气海穴能通经行气、清热祛湿；神阙培元固本，回阳救脱；足三里可扶助正气，调理水谷气血；三阴交能补益肝肾；水分穴利水道通调。选择相关的重要穴位可行气消胀通利，并协同艾灸法，温阳益气，可加快膀胱气化功能恢复，促进尿液排出<sup>[28]</sup>。中医学认为耳乃宗脉之所聚，与脏腑经络的变化息息相关。根据这种理论，通过耳穴贴压疗法刺激耳廓特定的穴位(如三焦、神门、膀胱、肾、肺等)，能够改善膀胱括约肌功能，减轻尿道括约肌痉挛，具有辅助治疗尿滞留的用途<sup>[29]</sup>。

本研究结果显示：研究组治疗后排尿无力、小腹坠胀、倦怠乏力、腰膝酸软等症状明显好转，自主排尿功能恢复时间、膀胱残余尿量、尿路感染率明显低于对照组，由此证明了中医多途径综合疗法的确切疗效与可行性。黄洁明等<sup>[30]</sup>研究通过采取中

医综合调护法(针刺、艾灸)治疗宫颈癌术后尿滞留，导尿管留置时间明显缩短，残尿量≥100 mL的比例明显降低。梁慧等<sup>[30]</sup>对9例宫颈癌术后顽固性尿滞留患者采取汤药、针刺联合微波透药进行治疗，自行排尿时间平均为16d，随访12~24周无复发。傅亚玲等<sup>[31]</sup>采用汤药辨证内服、针灸、耳穴贴压对肛肠术后尿滞留患者进行治疗，有效率达到92.2%，明显高于对照组74.5%。这些研究结果表明中医多途径综合疗法在治疗术后尿滞留中具有较高的可行性。

综上所述，中医多途径综合疗法治疗宫颈癌术后尿滞留具有明显的优势，可明显缩短病程，并降低尿路感染发生率。

### 参考文献(References)

- [1] Sumrien H, Dadnam C, Hewitt J, et al. Feasibility of Transanal Minimally Invasive Surgery (TAMIS) for Rectal Tumours and Its Impact on Quality of Life - The Bristol Series [J]. Anticancer Research, 2016, 36(4): 2005
- [2] Sacqué pé e M, Tivollier J M, Doussy Y, et al. G08.852.796.700.700 [Categoria DeCS][J]. Acta Physica Sinica, 2017, 61(5): 485-485
- [3] Wei H B, Fang J F, Zheng Z H, et al. Effect of preservation of Denonvilliers' fascia during laparoscopic resection for mid-low rectal cancer on protection of male urinary and sexual functions [J]. Medicine, 2016, 95(24): e3925
- [4] Wille H, Dauchy F A, Desclaux A, et al. Efficacy of debridement, antibiotic therapy and implant retention within three months during postoperative instrumented spine infections [J]. Infectious Diseases, 2017(4): 1-7
- [5] Aunan E, Næss G, Clarkejenssen J, et al. Patellar resurfacing in total knee arthroplasty: functional outcome differs with different outcome scores: A randomized, double-blind study of 129 knees with 3 years of follow-up[J]. Acta Orthopaedica, 2016, 87(2): 1-7
- [6] 王高娃.宫颈癌根治术后并发症的产生及卵巢功能的影响[J].世界最新医学信息文摘, 2016, 43(29): 108  
Wang Gao-wa. Postoperative complications of cervical cancer after radical operation and ovarian function [J]. The world's latest medical information Abstracts, 2016, 43 (29): 108
- [7] 刘春雨, 李晓娟, 刘佳, 等. 艾灸及护理干预对腰椎术后便秘患者的影响[J]. 西部中医药, 2016, 29(2): 139-140  
Liu Chun-yu, Li Xiao-juan, Liu Jia, et al. Moxibustion and nursing intervention on patients with constipation after lumbar surgery [J]. Western Medicine, 2016, 29(2): 139-140
- [8] 郑燕芳. 针刺配合艾灸治疗多发性硬化神经源性尿便障碍 23 例[J]. 西部中医药, 2015, 28(10): 111-113

- Zheng Yan-fang. Acupuncture combined with moxibustion treatment of multiple sclerosis neurogenic urinary obstruction in 23 cases [J]. Western Medicine, 2015, 28(10): 111-113
- [9] 黄洁明,李坤寅,李道成.中医综合调护法应用于宫颈癌术后尿潴留的临床研究[J].新中医, 2010, 42(6): 20-21
- Huang Jie-ming, Li Kun-yin, Li Dao-cheng. Clinical study of traditional Chinese medicine comprehensive nursing method for postoperative urinary retention in cervical cancer [J]. New Chinese Medicine, 2010, 42(6): 20-21
- [10] 夏欢,曹莉莉,蒋璐频,等.腹腔镜下保留盆腔自主神经的广泛性子宫切除术治疗早期宫颈癌的安全性及疗效的临床研究[J].实用妇产科杂志, 2016, 32(10): 763-766
- Xia Huan, Cao Li-li, Jiang Lu-pin, et al. Laparoscopic preservation of pelvic autonomic nerve extensive hysterectomy in the treatment of early cervical cancer safety and efficacy of clinical research [J]. Practical Journal of Obstetrics and Gynecology, 2016, 32(10): 763-766
- [11] 傅亚玲.穴位贴敷配合热疗按摩预防普外科术后尿潴留临床观察[J].辽宁中医杂志, 2013, 08(07): 1686-1687
- Fu Ya-ling. Effect of Acupoint Application with Thermotherapy on Prevention of Urinary Retention after General Surgery [J]. Liaoning Journal of Traditional Chinese Medicine, 2013, 08(07): 1686-1687
- [12] 叶萍,王雪,王玉霞,等.盆底肌群训练对宫颈癌术后尿潴留干预的效果观察[J].中华全科医学, 2015, 13(11): 1864-1865
- Ye Ping, Wang Xue, Wang Yu-xia, et al. Effect of pelvic floor muscle training on postoperative urinary retention in cervical cancer [J]. Chinese General Practice, 2015, 13(11): 1864-1865
- [13] 简小兰,蒋益兰,曾瀚,等.中医综合治疗对Ⅲ~Ⅳ期宫颈癌证候积分的影响[J].山东中医药大学学报, 2016, 12(6): 514-517
- Jane Xiao-lan, Jiang Yi-lan, Zeng Han, et al. Effect of Comprehensive Treatment of Traditional Chinese Medicine on Syndrome Integration of Cervical Cancer in Stage III ~ IV [J]. Journal of Shandong University of Traditional Chinese Medicine, 2016, 12(6): 514-517
- [14] 梁慧,王云启,王乐行,等.中药内服联合针刺及微波透药治疗宫颈癌术后顽固性尿潴留 9 例 [J].安徽中医药大学学报, 2015, 34(4): 46-49
- Liang Hui, Wang Yun-qi, Wang Yue-xing, et al. Treatment of 9 cases of intractable urinary retention after cervical cancer with traditional Chinese medicine combined with acupuncture and microwave. Journal of Anhui University of Traditional Chinese Medicine, 2015, 34(4): 46-49
- [15] 丁晓虹,王潇,吕晓宇,等.头体联合针刺与治脊疗法预防性治疗宫颈癌术后尿潴留的临床研究[J].广州中医药大学学报, 2015, 32(6): 1031-1034
- Ding Xiao-hong, Wang Xiao, Lv Xiao-yu, et al. Clinical Study on Prevention and Treatment of Postoperative Urinary Retention in Cervical Cancer by Combined Acupuncture and Acupuncture and Ridge Therapy [J]. Guangzhou Zhong Yi Xue Da Xue Bao, 2015, 32(6): 1031-1034
- [16] Mayo B C, Louie P K, Bohl D D, et al. Effects of Intraoperative Anesthetic Medications on Postoperative Urinary Retention after Single Level Lumbar Fusion[J]. Spine, 2016, 41(18): S373-S374
- [17] 戈宝红,吴鸿,李东芳.黎月恒教授针药并用治疗宫颈癌术后顽固性尿潴留经验[J].湖南中医药大学学报, 2016, 36(5): 49-51
- Ge Bao-hong, Wu Hong, Li Dong-fang. Professor Li Yueheng acupuncture combined with the treatment of cervical cancer after intractable urinary retention experience [J]. Journal of Hunan University of Traditional Chinese Medicine, 2016, 36(5): 49-51
- [18] Bjerregaard L S, Bogø S, Raaschou S, et al. Incidence of and risk factors for postoperative urinary retention in fast-track hip and knee arthroplasty: A prospective, observational study[J]. Acta Orthopaedica, 2015, 86(2): 183
- [19] Campbell L, Sammon J, Rahbar H, et al. Postoperative urinary retention in men is common after carotid endarterectomy and is associated with advanced age and prior urinary tract infection [J]. Journal of vascular surgery, 2015, 63(2): 355
- [20] Tsambarlis P, Sherer B, Godlewski K, et al. MP74-10 Quantification Of Risk Factors In 500 Consecutive Patients With Postoperative Urinary Retention (Pour)[J]. Journal of Urology, 2016, 195(4): e973-e973
- [21] Johnsen N V, Kammann T J, Marien T, et al. Comparison of Holmium Laser Enucleation of the Prostate Outcomes in Patients with and without Pre-Operative Urinary Retention [J]. Journal of Urology, 2015, 195(4): 1021-1026
- [22] Wein A J. Re: Urinary Retention Rates after Intravesical OnabotulinumtoxinA Injection for Idiopathic Overactive Bladder in Clinical Practice and Predictors of this Outcome [J]. Journal of Urology, 2015, 195(3): 685-686
- [23] Johnsen N V, Kammann T J, Marien T, et al. Comparison of Holmium Laser Prostate Enucleation Outcomes in Patients with or without Preoperative Urinary Retention[J]. Journal of Urology, 2016, 195(4 Pt 1): 1021
- [24] Prestmo A, Hagen G, Sletvold O, et al. Comprehensive geriatric care for patients with hip fractures: a prospective, randomised, controlled trial[J]. Lancet, 2015, 385(9978): 1623-1633
- [25] Ding Y, Rao S X, Chen C, et al. Assessing liver function in patients with HBV-related HCC: a comparison of T 1, mapping on Gd-EOB-DTPA-enhanced MR imaging with DWI [J]. European Radiology, 2015, 25(5): 1392-1398
- [26] Jaeger C D, Mitchell C R, Mynderse L A, et al. Holmium laser enucleation (HoLEP) and photoselective vaporisation of the prostate (PVP) for patients with benign prostatic hyperplasia (BPH) and chronic urinary retention[J]. Bju International, 2015, 115(2): 295
- [27] 盛昕玲,赵卫东,陈曦,等.宫颈癌腹腔镜根治术中与术后并发症发生率及影响因素的对比研究 [J].中国内镜杂志, 2017, 23(1): 20-24
- Sheng Xin-me, Zhao Wei-dong, Chen Xi-xi, et al. Cervical cancer laparoscopic radical surgery and postoperative complications and the impact of factors on the impact of a comparative study [J]. Chinese Journal of Endoscopy, 2017, 23(1): 20-24
- [28] 郭娜娜,王黎明,初慧君,等.保留盆腔自主神经广泛性子宫切除术对早期宫颈癌患者术后膀胱功能及生活质量的影响[J].山东医药, 2017, 57(1): 88-90
- Guo Na-na, Wang Li-ming, Chu Hui-jun, et al. Effect of extensive pelvic autonomic hysterectomy on bladder function and quality of life in patients with early cervical cancer [J]. Shandong Medical Journal, 2017, 57(1): 88-90

(下转第 6000 页)

- [71] Söder HK, Manninen HI, Jaakkola P, et al. Prospective trial of infrapopliteal artery balloon angioplasty for critical limb ischemia: angiographic and clinical results[J]. *J Vasc Interv Radiol*, 2000, 11(8): 1021-1031
- [72] Schmidt A, Ulrich M, Winkler B, et al. Angiographic patency and clinical outcome after balloon-angioplasty for extensive infrapopliteal arterial disease [J]. *Catheter Cardiovasc Interv*, 2010, 76 (7): 1047-1054
- [73] Baumann F, Willenberg T, Do DD, et al. Endovascular revascularization of below-the-knee arteries: prospective short-term angiographic and clinical follow-up[J]. *J Vasc Interv Radiol*, 2011, 22 (12): 1665-1673
- [74] Scheinert D, Katsanos K, Zeller T, et al. A prospective randomized multicenter comparison of balloon angioplasty and infrapopliteal stenting with the sirolimus-eluting stent in patients with ischemic peripheral arterial disease: 1-year results from the ACHILLES trial[J]. *J Am Coll Cardiol*, 2012, 60(22): 2290-2295
- [75] Romiti M, Albers M, Brochado-Neto FC, et al. Meta-analysis of infrapopliteal angioplasty for chronic critical limb ischemia[J]. *J Vasc Surg*, 2008, 47(5): 975-981
- [76] Schmidt A, Piorkowski M, Werner M, et al. First experience with drug-eluting balloons in infrapopliteal arteries: restenosis rate and clinical outcome[J]. *J Am Coll Cardiol*, 2011, 58(11): 1105-1109
- [77] Liistro F, Porto I, Angioli P, et al. Drug-Eluting Balloon in Peripheral Intervention for Below the Knee Angioplasty Evaluation (DEBATE-BTK) Clinical Perspective [J]. *Circulation*, 2013, 128(6): 615-621
- [78] Zeller T, Baumgartner I, Scheinert D, et al. Drug-eluting balloon versus standard balloon angioplasty for infrapopliteal arterial revascularization in critical limb ischemia: 12-month results from the IN.PACT DEEP randomized trial [J]. *J Am Coll Cardiol*, 2014, 64 (14): 1568-1576
- [79] McKinsey JF, Zeller T, Rocha-Singh KJ, et al. Lower extremity revascularization using directional atherectomy: 12-month prospective results of the DEFINITIVE LE study [J]. *JACC Cardiovasc Interv*, 2014, 7(8): 923-933
- [80] Sixt S, Carpio Cancino OG, Treszl A, et al. Drug-coated balloon angioplasty after directional atherectomy improves outcome in restenotic femoropopliteal arteries[J]. *J Vasc Surg*, 2013, 58(3): 682-686
- [81] Cioppa A, Stabile E, Popusoi G, et al. Combined treatment of heavy calcified femoro-popliteal lesions using directional atherectomy and a paclitaxel coated balloon: One-year single centre clinical results[J]. *Cardiovasc Revasc Med*, 2012, 13(4): 219-223
- [82] Liistro F, Grotti S, Porto I, et al. Drug-eluting balloon in peripheral intervention for the superficial femoral artery: the DEBATE-SFA randomized trial (drug eluting balloon in peripheral intervention for the superficial femoral artery)[J]. *JACC Cardiovasc Interv*, 2013, 6 (12): 1295-1302
- [83] Pande RL, Perlstein TS, Beckman JA, et al. Secondary prevention and mortality in peripheral artery disease: National Health and Nutrition Examination Study, 1999 to 2004[J]. *Circulation*, 2011, 124(1): 17-23
- [84] Inglis SC, Lewsey JD, Lowe GD, et al. Angina and intermittent claudication in 7403 participants of the 2003 Scottish Health Survey: impact on general and mental health, quality of life and five-year mortality[J]. *Int J Cardiol*, 2013, 167(5): 2149-2155
- [85] Fowkes FGR, Rudan D, Rudan I, et al. Comparison of global estimates of prevalence and risk factors for peripheral artery disease in 2000 and 2010: a systematic review and analysis [J]. *Lancet*, 2013, 382(9901): 1329-1340
- [86] Pietzsch JB, Geisler BP, Garner AM, et al. Economic analysis of endovascular interventions for femoropopliteal arterial disease: a systematic review and budget impact model for the United States and Germany[J]. *Catheter Cardiovasc Interv*, 2014, 84(4): 546-554
- [87] Diehm N, Schneider H. Cost-effectiveness analysis of paclitaxel-coated balloons for endovascular therapy of femoropopliteal arterial obstructions[J]. *J Endovasc Ther*, 2013, 20(6): 819-825
- [88] Kearns BC, Michaels JA, Stevenson MD, et al. Cost-effectiveness analysis of enhancements to angioplasty for infrainguinal arterial disease[J]. *Br J Surg*, 2013, 100(9): 1180-1188
- [89] Hong SJ, Ko YG, Shin DH, et al. Outcomes of spot stenting versus long stenting after intentional subintimal approach for long chronic total occlusions of the femoropopliteal artery [J]. *JACC Cardiovasc Interv*, 2015, 8(3): 472-480
- [90] Cremers B, Schmitmeier S, Clever YP, et al. Inhibition of neo-intimal hyperplasia in porcine coronary arteries utilizing a novel paclitaxel-coated scoring balloon catheter [J]. *Catheter Cardiovasc Interv*, 2014, 84(7): 1089-1098
- [91] Cioppa A, Stabile E, Popusoi G, et al. Combined treatment of heavy calcified femoro-popliteal lesions using directional atherectomy and a paclitaxel coated balloon: one-year single centre clinical results [J]. *Cardiovasc Revasc Med*, 2012, 13(4): 219-223
- [92] Bowen PK, Guillory RJ, Shearier ER, et al. Metallic zinc exhibits optimal biocompatibility for bioabsorbable endovascular stents [J]. *Mater Sci Eng C Mater Biol Appl*, 2015, 56: 467-472
- [93] Byrne RA, Joner M, Alfonso F, et al. Drug-coated balloon therapy in coronary and peripheral artery disease [J]. *Nat Rev Cardiol*, 2014, 11 (1): 13-23
- [94] Gray WA, Granada JF. Drug-coated balloons for the prevention of vascular restenosis[J]. *Circulation*, 2010, 121(24): 2672-2680

(上接第 5903 页)

- [29] 吴科, 李雨聪, 唐郢. 腹腔镜根治性子宫切除联合盆腔淋巴清扫术后是否放置引流对盆腔淋巴囊肿的影响 [J]. 中国微创外科杂志, 2016, 16(12): 1089-1091  
Wu Ke, Li Yu-cong, Tang Ying. Effect of laparoscopic radical hysterectomy combined with pelvic lymphadenectomy on pelvic lymphatic cysts [J]. Chinese Journal of Minimally Invasive Surgery, 2016, 16(12): 1089-1091
- [30] 梁慧, 王云启, 王乐行, 等. 中药内服联合针刺及微波透药治疗宫颈癌术后顽固性尿潴留 9 例 [J]. 安徽中医药大学学报, 2015, 04(16): 46-49  
Liang Hui, Wang Yun-qi, Wang Yue-xing, et al. Treatment of cervical cancer with intractable urinary retention in 9 cases [J]. Journal of Anhui University of Traditional Chinese Medicine, 2015, 04 (16): 46-49