

doi: 10.13241/j.cnki.pmb.2020.12.038

补中益气汤联合生物反馈电刺激在产后盆底功能障碍患者的应用研究*

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摘要 目的: 研究探讨补中益气汤联合生物反馈电刺激对产后盆底功能障碍患者的临床治疗效果及其对盆底肌肉张力的影响。**方法:** 选择我院就诊的 90 例产后盆底功能障碍气虚证患者(2017 年 11 月~2018 年 10 月),按照随机数字表法划分为 30 例/组的 A 组、B 组、C 组, A 组实施常规盆底肌锻炼, B 组采用盆底治疗仪实施生物反馈电刺激治疗, C 组实施生物反馈电刺激联合中药补中益气汤治疗, 比较三组的疗效、盆底肌力评分、阴道最大收缩压、盆腔器官脱垂、尿失禁、性生活质量评分。**结果:** (1) 组间临床疗效、证候疗效比较, C 组的临床总有效率、证候改善总有效率均高于 A 组、B 组($P<0.05$), 而 A 组与 B 组之间比较均无统计学差异($P>0.05$)。 (2) 治疗后, C 组的盆底肌力评分、阴道最大收缩压、性生活质量评分均高于 A 组、B 组($P<0.05$), A 组与 B 组之间比较均无统计学差异($P>0.05$)。 (3) C 组的盆腔器官脱垂、尿失禁等发生率均低于 A 组、B 组($P<0.05$), 而 A 组与 B 组比较均无统计学差异($P>0.05$)。**结论:** 生物反馈电刺激联合补中益气汤治疗可有效改善产后盆底功能障碍患者的盆底肌力和阴道压力, 达到良好的临床疗效, 有利于预防盆腔器官脱垂、尿失禁的发生, 改善其性生活质量。

关键词: 盆底功能障碍; 产后; 生物反馈电刺激; 盆底肌锻炼; 补中益气汤; 中药

中图分类号: R711.5; R271.43 **文献标识码:** A **文章编号:** 1673-6273(2020)12-2371-04

Application of Buzhong Yiqi Decoction Combined with Biofeedback Electrical Stimulation in Patients with Postpartum Pelvic Floor Dysfunction*

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ABSTRACT Objective: To study the clinical effect of Buzhong Yiqi Decoction combined with biofeedback electrical stimulation on postpartum pelvic floor dysfunction and its effect on pelvic floor muscle tension. **Methods:** Ninety patients with postpartum pelvic floor dysfunction and Qi deficiency syndrome (November 2017 to October 2018) were selected and divided into three groups according to random number table: group A, group B and group C. Group A underwent routine pelvic floor muscle exercise, group B underwent biofeedback electric stimulation therapy with pelvic floor therapeutic apparatus, and group C underwent biofeedback electric needling. The curative effect, pelvic floor muscle strength score, maximum vaginal systolic pressure, pelvic organ prolapse, urinary incontinence and quality of sexual life score of the three groups were compared. **Results:** (1) Compared the clinical efficacy and syndromes efficacy between groups, the total clinical efficiency and syndromes improvement efficiency of group C were higher than those of group A and group B ($P<0.05$), but there was no statistical difference between group A and group B ($P>0.05$). (2) After treatment, pelvic floor muscle strength score, vaginal maximum systolic pressure and sexual quality score in group C were higher than those in group A and group B ($P<0.05$), and there was no significant difference between group A and group B ($P>0.05$). (3) The incidence of pelvic organ prolapse and urinary incontinence in group C was lower than that in group A and group B ($P<0.05$), but there was no significant difference between group A and group B ($P>0.05$). **Conclusion:** Biofeedback electric stimulation combined with Buzhong Yiqi Decoction can effectively improve pelvic floor muscle strength and vaginal pressure in patients with postpartum pelvic floor dysfunction, achieve good clinical efficacy, and help to prevent pelvic organ prolapse and urinary incontinence, and improve their sexual life quality.

Key words: Pelvic floor dysfunction; Postpartum; Biofeedback electrical stimulation; Pelvic floor muscle exercise; Buzhong Yiqi Decoction; Traditional Chinese medicine

Chinese Library Classification(CLC): R711.5; R271.43 **Document code:** A

Article ID: 1673-6273(2020)12-2371-04

前言

盆底功能障碍是一种常见的产后并发症,往往会诱发盆腔器官脱垂、尿失禁等严重后果,对产妇产后恢复和生活方式十

* 基金项目: (2017-2020 年)上海浦东新区卫计委资助项目(PWZZb2017-04); (2017-2019 年)上海市妇幼保健中医专项建设项目

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(收稿日期:2020-02-24 接受日期:2020-03-20)

分不利,故需实施积极治疗^[1-3]。临床上针对产后盆底功能障碍多采取生物反馈电刺激,可在一定程度上缓解盆底肌痉挛^[4],而近年来,中医药被逐渐用于产后盆底功能障碍治疗中,现代研究表明^[5],补中益气汤对心肌、子宫、小肠等不同器官都具有调节作用,对离体子宫或在体子宫及其周围组织结构都有选择性兴奋作用,可增强子宫及其周围组织的收缩力,抑制子宫运动,增加子宫肌张力,治疗产后盆底功能障碍的疗效显著。基于此,本研究旨在探讨中药补中益气汤联合生物反馈电刺激用于产后盆底功能障碍中的效果,针对90例产后盆底功能障碍患者开展研究。

1 资料与方法

1.1 一般资料

选择我院产后盆底功能障碍气虚证患者90例(2017年11月~2018年10月),本研究分组方法经医院伦理委员会批准,按照随机数字表法划分为30例/组的A组、B组、C组,其中,A组的年龄为23~37岁,平均(29.03±5.14)岁,阴道分娩23例,剖宫产7例;B组的年龄为24~37岁,平均(29.49±5.31)岁,阴道分娩22例,剖宫产8例;C组的年龄为22~38岁,平均(29.31±5.27)岁,阴道分娩24例,剖宫产6例。两组患者年龄与妊娠结局一般资料对比 $P>0.05$,具有可比性。

纳入标准:(1)足月单胎分娩;(2)经盆底肌检测、症状观察,证实为盆底功能障碍,中医辨证分型为气虚证;(3)对研究知情同意。

排除标准:(1)患有心脏病、糖尿病、高血压等疾病的患者;(2)泌尿系统感染或尿路梗阻患者。(3)恶露未净者;(4)有子宫肌瘤或卵巢肿瘤手术史患者;(5)神经系统疾病患者。

1.2 方法

A组实施常规盆底肌锻炼,指导患者采用凯格尔训练法,即患者做缩肛动作,每次至少持续3秒后放松,反复进行,每次持续15分钟,每天2次。

B组在此基础上增强盆底治疗仪实施生物反馈电刺激治疗,具体如下:(1)肌肉生物反馈:按照肌纤维收缩时间和次数进行分类,其中,1类生物反馈即初始收缩3s,逐渐增至收缩30s,休息时间与收缩时间相同,共持续10~15min;2类生物反

馈即初始快速收缩1次,逐渐增至快速收缩10次,休息时间为收缩时间的2~3倍,共持续10~15min。(2)场景生物反馈:建立多种情景动作模拟反射曲线,包括提重物、上楼梯,在情景模拟时,锻炼产妇的盆底肌收缩能力。

C组在B组基础上加用补中益气汤,药方为当归24g、川芎9g、桃仁6g、干姜3g、甘草6g,水煎取汁400mL为1剂,每日1剂,分早晚2次温服。

三组均治疗12周。

1.3 观察指标

比较三组的临床疗效、证候疗效、盆底肌力评分、阴道最大收缩压、盆腔器官脱垂发生率、尿失禁发生率、性生活质量评分。

1.4 评价方法

临床疗效评价标准^[6]:(1)显效:症状基本消失,盆底肌力至少改善2级;(2)有效:症状有所缓解,盆底肌力至少改善1级;(3)无效:未达到显效或有效标准。总有效率=显效率+有效率。

证候疗效评价标准^[6]:(1)临床痊愈:中医症状基本消失,证候积分至少减少70%;(2)显效:中医症状明显好转,证候积分至少减少70%、不足90%;(3)有效:中医症状有所好转,证候积分至少减少30%、不足70%;(4)无效:中医症状未好转,甚或加重,证候积分减少不足30%。总有效率=临床痊愈率+显效率+有效率。

盆底肌力评分^[7]:根据盆底肌收缩时间和缩肛完成次数评估,分为0~5级,对应0~5分,盆底肌力越好,得分越高。

性生活质量评分^[8]:评估工具为美国泌尿系疾患基金会女性性生活质量量表(FSSI),总分为0~100分,患者性生活质量越好,得分越高。

1.5 统计学处理

应用SPSS 26.0软件,计数资料表示为率,行 χ^2 检验,计量资料表示为($\bar{x}\pm s$),行t检验, $P<0.05$ 时存在显著差异。

2 结果

2.1 三组临床疗效、证候疗效的比较

组间临床疗效、证候疗效比较,C组的临床总有效率、证候改善总有效率均高于A组、B组($P<0.05$),而A组与B组之间比较均无统计学差异($P>0.05$)。见表1-2。

表1 三组临床疗效的比较[例(%)]

Table 1 Comparison of clinical effects of three groups [n (%)]

Groups	n	Significantly effective	Effective	Ineffective	Total ineffective
Group A	30	9(30.00%)	11(36.67%)	10(33.33%)	20(66.67%)
Group B	30	10(33.33%)	12(40.00%)	8(26.67%)	22(73.33%)
Group C	30	15(50.00%)	13(43.33%)	2(6.67%)	28(93.33%) ^{ab}

Note: ^a indicates comparison with group A, ^b indicates comparison with group B, $P<0.05$.

表2 三组证候疗效的比较[例(%)]

Table 2 Comparison of therapeutic effect of three groups of syndromes [n (%)]

Groups	n	Clinical recovery	Significantly effective	Effective	Ineffective	Total ineffective
Group A	30	2(6.67%)	8(26.67%)	13(43.33%)	7(23.33%)	23(76.67%)
Group B	30	3(10.00%)	9(30.00%)	12(40.00%)	6(20.00%)	24(80.00%)
Group C	30	5(16.67%)	10(33.33%)	14(46.67%)	1(3.33%)	29(96.67%) ^{ab}

Note: ^a indicates comparison with group A, ^b indicates comparison with group B, $P<0.05$.

2.2 三组盆底肌力评分、阴道最大收缩压的比较

三组治疗后的盆底肌力评分、阴道最大收缩压均较治疗前增高($P<0.05$),而在治疗后,C组的盆底肌力评分、阴道最大收

缩压均高于A组、B组($P<0.05$),A组与B组之间比较均无统计学差异($P>0.05$)。见表3。

表3 三组盆底肌力评分、阴道最大收缩压的比较($\bar{x}\pm s$)

Table 3 Comparison of pelvic floor muscle strength score and vaginal maximum systolic pressure in three groups($\bar{x}\pm s$)

Groups	n	Pelvic floor muscle score (points)		Vaginal systolic pressure (cmH ₂ O)	
		before treatment	After treatment	before treatment	After treatment
Group A	30	1.82±0.48	2.45±0.64*	51.20±8.04	62.39±10.85*
Group B	30	1.87±0.47	2.51±0.62*	51.38±7.95	62.94±11.23*
Group C	30	1.96±0.49	3.28±0.79* ^{ab}	51.57±8.16	75.86±12.90* ^{ab}

Note: * indicates comparison with before treatment, ^a indicates comparison with group A, ^b indicates comparison with group B, $P<0.05$.

2.3 三组盆腔器官脱垂、尿失禁等发生率的比较

C组的盆腔器官脱垂、尿失禁等发生率均低于A组、B组

($P<0.05$),而A组与B组的盆腔器官脱垂发生率、尿失禁发生率比较均无统计学差异($P>0.05$)。见表4。

表4 三组盆腔器官脱垂、尿失禁等发生率的比较[例(%)]

Table 4 Comparison of the incidence of pelvic organ prolapse and urinary incontinence among the three groups [n (%)]

Groups	n	Pelvic organ prolapse	Urinary incontinence
Group A	30	5(16.67%)	7(23.33%)
Group B	30	4(13.33%)	6(20.00%)
Group C	30	0(0%) ^{ab}	1(3.33%) ^{ab}

Note: ^a indicates comparison with group A, ^b indicates comparison with group B, $P<0.05$.

2.4 三组性生活质量评分的比较

治疗后,三组性生活质量评分与治疗前相比均明显增高

($P<0.05$),而C组的性生活质量评分高于A组、B组($P<0.05$),A组与B组比较无统计学差异($P>0.05$)。见表5。

表5 三组性生活质量评分的比较($\bar{x}\pm s$,分)

Table 5 Comparison of sexual quality of life scores of three groups ($\bar{x}\pm s$, points)

Groups	n	Sexual life quality score	
		Before treatment	After treatment
Group A	30	69.53±5.22	76.34±6.50*
Group B	30	69.69±5.43	77.01±6.82*
Group C	30	69.87±5.29	84.46±7.47* ^{ab}

Note: * indicates comparison with before treatment, ^a indicates comparison with group A, ^b indicates comparison with group B, $P<0.05$.

3 讨论

盆底功能障碍主要是指女性盆底支持结构发生损伤、缺陷而引发的盆底肌力减退,其发生主要与女性患者的年龄、绝经、分娩、盆腔手术有关,而分娩是导致盆底功能障碍的最主要原因,在产后发生的概率较高^[9-12]。产后盆底功能障碍的临床治疗以盆底肌锻炼、生物反馈电刺激为主,生物反馈电刺激主要是利用盆底康复治疗仪对患者盆底肌肉信号予以反馈,指导其盆底功能锻炼,而电刺激可有效促使患者盆底肌肉群收缩,强化其盆底肌肉群功能^[13-18]。

近年来,中医药逐渐被用于产后盆底功能障碍治疗中,产后盆底功能障碍对应中医学中的"产后病",其发病原因主要与脾、肾、肺三大器官密切相关,病机为气虚,脾失健运,气虚下陷,冲任不固,终致盆底肌力下降,属于产后小便不禁、产肠不收之症。中医治疗原则为健脾益气^[19-24]。补中益气汤是一剂健脾

益气的名方,具有补血调经、理气和血、补中益气的作用。补中益气汤的药方中当归可补血活血、调经止痛,川芎可行气开郁、活血止痛,桃仁可活血祛瘀,干姜可温中散寒、回阳通脉,甘草可健脾益气、缓急止痛、调和诸药,组方严谨,配伍合理,诸药合用可活血化瘀、健脾益气、温中止痛,对子宫、阴道都具有调理作用,可增强子宫及周围组织的收缩力,促进下垂、松弛之症自复其位^[25-32]。本研究发现,C组的临床总有效率、证候改善总有效率均高于A组、B组($P<0.05$),其治疗后的盆底肌力评分、阴道最大收缩压、性生活质量评分均高于A组、B组($P<0.05$),其盆腔器官脱垂发生率、尿失禁发生率均低于A组、B组($P<0.05$),而A组与B组的临床总有效率、证候改善总有效率、盆底肌力评分、阴道最大收缩压、性生活质量评分、盆腔器官脱垂发生率、尿失禁发生率比较均无统计学差异($P>0.05$),充分说明中药补中益气汤与生物反馈电刺激联合应用可更好地改善产后盆底功能障碍患者的盆底肌力,降低盆腔器官脱垂、尿失禁

风险,有利于改善其产后性生活质量,疗效显著,预后良好^[33-35]。

综上所述,生物反馈电刺激+补中益气汤对产后盆底功能障碍的疗效显著,可切实改善盆底肌力和阴道压力,达到良好的临床疗效,有利于预防盆腔器官脱垂、尿失禁的发生,改善其性生活质量。

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耐药基因是 MDR-Ab 耐药重要原因之一。提示临床医生应及时了解 MDR-Ab 的耐药性及携带的耐药基因, 尽量避免经验性用药^[30], 合理应用抗菌药物对于控制医院内 MDR-Ab 感染、传播及延缓细菌耐药性的发展具有重要的临床意义。

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