

· 临床论著 ·

高血压血栓前状态的社区中医体质防治方案的研究*

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摘要:目的:运用中医体质防治方案对高血压病血栓前状态(pro-thrombotic state, PTS)患者进行早期干预,观察血压控制情况、患者生活质量、高血压血栓前状态分子标志物水平及心肌梗死与脑梗死发生率的影响,评价高血压血栓前状态的社区中医体质防治方案的可行性。方法:对240例高血压病血栓前状态患者进行中医体质干预,并与西医治疗对照,随访1年后进行对比研究。结果:体质组血压控制情况与对照组差异有统计学意义($P < 0.05$);体质组较对照组生活质量改善明显($P < 0.05$);体质组PTS分子标志物水平中vWF、GMP-140、11-DH-TXB2下降显著,AT升高显著,与对照组比较差异有统计学意义($P < 0.05$);心肌梗死率及脑梗死率,差异有统计学意义($P < 0.05$)。结论:高血压血栓前状态的社区中医体质防治方案的干预效果显著。

关键词:高血压病血栓前状态;中医体质;早期干预

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高血压病存在PTS(pro-thrombotic state, PTS),且PTS与高血压靶器官损害有关^[1~2],对高血压病PTS进行有效的干预,可以防止越来越多血栓性事件的发生。通过前期的研究,确认了高血压病PTS的中医体质特点及与PTS分子标志物的相关性(高血压PTS的常见体质为阴虚质、气虚质、痰湿质。阴虚质、气虚质、痰湿质体质与PTS分子标志物水平vWF、11-DH-TXB2、GMP-140、Fib之间呈不同程度的正相关,与AT呈负相关;PTS标志物vWF、

11-DH-TXB2、GMP-140、Fib水平随年龄的增大而增高,AT则相反),结合分析古今文献,经专家优化制定了高血压病PTS的社区中医体质防治方案并应用于240例高血压病PTS患者,随访1年后,进行总结分析如下。

1 资料与方法

1.1.1 纳入标准 ①符合高血压1、2级的诊断标准者,诊断、分类标准按2010版《中国高血压防治指南》制定的标准;②患者知情配合。

1.1.2 排除标准 ①不符合纳入病例标准者。②合并急性冠脉综合征、脑梗塞、静脉血栓栓塞症、下肢动脉硬化闭塞症等血栓并发症者。③继发性高血压、急性感染、严重心力衰竭、糖尿病及严重肝肾功能不全等疾病。

1.2 临床资料 240例均来源于2011年7月至2011年12月广西中医学院第一附属医院心血管内科住院的高血压病患者,符合纳入标准。采用随机数字表法,将其随机分为体质组和对照组各120例,2组患者性别、年龄、病程、危险因素等均无显著性差异,具有可比性。

1.3 干预方法 2组均给予基础西医治疗(按卫生部颁布《中国高血压防治指南》:硝苯地平缓释片10mg/次,每天2次;培哚普利片4mg/次,每天1次。)

体质组中医体质防治优化方案具体包括:a.健康宣教。制作印刷健康手册的发放到每位患者的手中。手册主要根据中医体质特点进行介绍养生保健的方法,如饮食调养、功法摄养等;b.每季度开展高血压知识讲座,每次都有1个主题,如高血压的并发

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症及危害;饮食与运动治疗;高血压药物治疗及药物的不良反应;高血压患者的心理干预;面对面与授课人员交流等;c. 定期管理随访;d. 药物调治,即辨体施药。辨体质施药:其基本原则以扶正为先,祛邪为次;长期调理,毋求速效;寓药于食,大方小剂。阴虚阳亢体质当平肝潜阳,平素服杞菊地黄丸、天麻钩藤饮等养阴潜阳平肝之剂,以防阳亢生风;若郁火偏盛者,予丹栀逍遥散解郁清肝;若阴液已虚,已成虚风内动者,当选三甲复脉汤、大定风珠等,急滋肝肾之阴,以熄风止痉;痰湿内盛者予二陈汤、半夏白术天麻汤加减配合归脾丸口服,化热者予温胆汤;气虚体质者予玉屏风散加减配合归脾丸、参苓白术颗粒或者八珍汤口服。

2 观察指标

2组随访1年,每3月观察①血压控制情况:降压疗效评定(参照《2002年中药新药临床研究指导原则》):显效:舒张压下降10 mmHg以上,并达到正常范围;舒张压虽未降至正常,但已下降20 mmHg或以上。有效:舒张压下降不及10 mmHg,但已达到正常范围;舒张压较治疗前下降10~19 mmHg,但未达到正常范围;收缩压较治疗前下降30 mmHg以上。须具备其中1项。无效:未达到以上标准者。②空腹采静脉血检测PTS分子标志物水平:血管性血友病因子(vWF)、血浆血小板 α -颗粒膜蛋白(GMP-140)、11-去氢血栓烷B2(11-DH-TXB2)、纤维蛋白原(FIB)、人抗凝血酶(AT)的含量。vWF、GMP-140、11-DH-TXB2含量采用酶联免疫吸附双抗体夹心法(ELISA);AT活性测定采用发色底物法;纤维蛋白原(FIB)含量测定采用Clauss凝固法。③生活质量:采用健康调查简表(简称SF-36)^[3]评定,SF-36包括患者的角色功能、生活方式、情绪功能、用药知识及总体生活质量5个方面,每个项目得分100分,分数越高表示健康状况越好,生活质量越高。④心肌梗死及脑梗死的发生率。

3 统计学处理

采用SPSS 17.0统计软件处理,计量资料以(\bar{x}

$\pm s$)表示,若符合正态分布且方差不齐性,2组间比较采用 t 检验,组内比较采用配对 t 检验;计数资料用率表示,采用 χ^2 检验; $P < 0.05$ 为差异有统计学意义。

4 结果

4.1 2组治疗前后血压比较 干预后,2组收缩压及舒张压均有所下降,干预3个月后体质组与对照组比较,差异有统计学意义($P < 0.05$)。见表1。

表1 2组治疗前后血压比较($\bar{x} \pm s$, mmHg)

治疗时间	体质组(收缩压/舒张压)	对照组(收缩压/舒张压)
干预前	169 \pm 11/89 \pm 1	165.5 \pm 12/98.5 \pm 11
干预3个月	138 \pm 7/85 \pm 8 [▲]	154 \pm 8/91 \pm 8
干预6个月	134 \pm 5/79 \pm 4 [▲]	144 \pm 6/89 \pm 6
干预9个月	130 \pm 4/80 \pm 4 [▲]	152 \pm 5/90 \pm 4
干预12个月	128 \pm 5/74 \pm 3 [▲]	140 \pm 6/88 \pm 6

注:体质组与干预前相比较,▲ $P < 0.05$

4.2 2组治疗前后SF-36各次评分比较 干预后,体质组角色功能、生活方式、情绪功能、用药知识及总体生活质量改善明显,干预后体质组与对照组比较,差异有统计学意义($P < 0.05$)。见表2。

表2 2组治疗前后SF-36各项评分($\bar{x} \pm s$,分)

项目	时间	体质组	对照组
角色功能	干预前	71.6 \pm 16.1	68.3 \pm 18.0
	干预后	82.3 \pm 11.6	71.2 \pm 17.1
生活方式	干预前	66.2 \pm 17.1	67.4 \pm 16.6
	干预后	84.3 \pm 16.3	72.3 \pm 17.0
情绪功能	干预前	71.5 \pm 14.5	72.0 \pm 14.0
	干预后	87.0 \pm 12.0	73.4 \pm 15.1
用药知识	干预前	62.3 \pm 10.2	64.0 \pm 12.6
	干预后	86.6 \pm 13.1	70.2 \pm 12.4
总生活质量	干预前	69.4 \pm 16.3	68.7 \pm 17.0
	干预后	85.3 \pm 17.1 [▲]	70.8 \pm 16.6

注:“▲”体质组与干预前总生活质量相比较,▲ $P < 0.05$

4.3 2组PTS分子标志物水平比较 干预1年后,体质组PTS分子标志物水平中vWF、GMP-140、11-DH-TXB2、FIB下降显著,AT升高显著,与干预前相比差异有统计学意义($P < 0.05$)。同时与对照组比较差异有统计学意义($P < 0.05$)。见表3。

表3 PTS分子标志物水平

项目	时间	体质组	对照组
vWF(u/l)	干预前	69.22±62.31	65.58±74.01
	干预3个月	54.59±0.59	56.79±0.67
	干预6个月	39.83±4.24	44.47±5.22
	干预9个月	26.03±0.08	45.34±0.09
	干预12个月	24.19±2.18▲	42.13±3.13△
GMP-140 (ng/mL)	干预前	0.55±0.01	0.58±0.01
	干预3个月	2.65±0.01	0.57±0.01
	干预6个月	2.49±0.015	0.52±0.015
	干预9个月	1.44±0.07	0.51±0.24
	干预12个月	0.32±0.04●	0.48±0.04○
11-DH-TXB2 (ng/mL)	干预前	3.33±2.27	3.67±2.39
	干预3个月	2.44±0.03	3.23±0.28
	干预6个月	1.88±0.09	3.81±0.34
	干预9个月	1.86±0.32	3.46±0.60
	干预12个月	1.82±0.18★	3.41±0.73☆
FIB(g/l)	干预前	3.81±0.17	4.03±0.09
	干预3个月	3.65±0.45	3.85±0.31
	干预6个月	3.02±0.60	3.71±0.56
	干预9个月	2.55±0.68	3.70±0.34
	干预12个月	1.97±0.57▲	4.01±0.38*
AT(u/mL)	干预前	15.60±9.52	14.52±8.26
	干预3个月	27.93±2.69	12.58±4.23
	干预6个月	61.55±8.64	10.78±5.26
	干预9个月	87.53±4.56	23.32±5.74
	干预12个月	117.40±10.51■	16.43±2.32□

注：“▲”与“△”；“●”与“○”；“★”与“☆”；“▲”与“△”；“■”与“□”相比较，P<0.05

4.4 2组心肌梗死及脑卒中比较 见表4。

表4 1年内2组组心肌梗死及脑卒中比较(%)

组别	体质组	对照组
心肌梗死	0(0%)*	4(3.3%)
脑卒中	1(0.83%)	5(4.2%)

与对照组比较,* P<0.05

5 讨论

我国属于高血压的高发国家,近期研究表明全国每年有230万人的死亡与血压升高有关^[4],高血压患病率的不断升高及其严重的并发症如脑卒中、心肌梗死、心力衰竭及慢性肾脏病成为致残、致死的主要原因。高血压血栓前状态(Prethromboticstate,PTS)是机体可能发生血栓形成的状态,即纤维蛋白产生前的状态,在一定条件下或诱因下PTS有利于血栓堵塞

性疾病的发生。西医目前无针对PTS的治疗措施。从临床实践也发现,抗高血压治疗可使高血压病患者心血管疾病发病的危险减少25%;而进一步加用抗血小板药物阿斯匹林则能使高血压患者主要的心血管事件降低15%^[5-6],但采用的抗血小板药物及血管紧张素转换酶抑制剂、血管紧张素受体阻滞剂、钙离子拮抗剂和他汀类等药物防治PTS仍不能令人满意,表现在临床上高血压患者并发冠心病、脑梗死等的发生率仍非常高,而且长期服药不仅增加了患者的经济负担,长期服抗血小板药物还增加患者出血的风险。

中医认为,疾病发生与否,主要取决于正气的盛衰,而正气的强弱和个体体质状况密切相关。干预高血压的偏颇体质,是中医“治未病”思想的体现,通过前期的研究,确认了高血压病PTS的中医体质特点及与PTS分子标志物的相关性即高血压PTS的常见体质为阴虚质、气虚质、痰湿质,这三种体质与PTS分子标志物水平vWF、11-DH-TXB2、GMP-140、Fib之间呈不同程度的正相关,与AT呈负相关;PTS标志物vWF、11-DH-TXB2、GMP-140、Fib水平随年龄的增大而增高,AT则相反,通过运用中医体质防治方案对高血压病血栓前状态的干预研究发现:体质组与对照组对比,不仅血压控制情况差异有统计学意义,而且在生活质量改善、PTS分子标志物水平、心肌梗死率及脑梗死率上,差异有统计学意义。因此,中医体质防治方案在高血压病血栓前状态的防治是可行的,下一步我们将扩大研究样本量,不断的优化,并应用于临床,最终形成标准化可操控性的高血压病血栓前状态中医体质防治方案,这为控制高血压血栓性疾病的发展、伤残和死亡,从而减轻这一疾病所带来的沉重的社会、经济和医疗问题,提高广大患者的生活质量有着长远的意义。由此为从“治未病”的角度早期预防高血压病血栓并发症,从而从根本上控制高血压病血栓性疾病的发展、伤残和死亡提供理论和方法。

参考文献:

[1]Lip GHY. Targert organ damage and the prothombotic state in hypertension[J]. Hypertension,2000,36(6):975~977.

中药联合腹腔镜对盆腔炎性不孕患者肿瘤坏死因子 α 的影响

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摘要:目的:分析盆腔粘连程度与盆腔炎性不孕患者腹腔液、血清肿瘤坏死因子 α (TNF- α)的相关性,观察中药联合腹腔镜手术对盆腔炎性不孕患者血清TNF- α 的影响。方法:收集因盆腔炎性不孕行腹腔镜手术治疗的85例患者,采用分层随机方法分为4组:手术组(轻度)20例,手术+中药组(轻度)22例,手术组(中度)21例,手术+中药组(中度)22例。收集同期因单纯性卵巢囊肿行腹腔镜手术患者20例作为非炎症对照组。观察术后3~6个月内各组患者的妊娠情况;并将腹腔液、血清TNF- α 水平与盆腔粘连程度行相关性分析;比较各组治疗前后血清TNF- α 水平。结果:①中度粘连者,术后半年妊娠率在手术+中药组为54.5%,在手术组为23.8%,两组比较有显著差异($P<0.05$)。②血清TNF- α 水平与腹腔液TNF- α 呈显著正相关($P<0.05$),腹腔液、血清TNF- α 水平与盆腔粘连程度呈显著正相关($P<0.05$)。③治疗后,血清TNF- α 在手术+中药组(轻、中度)、手术组(中度)较治疗前明显降低($P<0.05$);在手术+中药组(中度)明显低于手术组(中度)($P<0.05$)。结论:腹腔液、血清TNF- α 水平与盆腔粘连程度呈显著正相关;中药联合腹腔镜治疗可提高盆腔炎性不孕患者的妊娠率,显著降低盆腔炎性不孕患者血清TNF- α 水平。

关键词:盆腔炎性不孕;中药;腹腔镜;肿瘤坏死因子 α

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[2] 芦璐,姚艳粉,宗俊学. 血栓前状态与原发高血压关系的临床研究[J]. 中国综合临床, 2006, 22(2): 97.

[3] 王金平,吴建龙. 高血压患者药物治疗与生活质量的的关系[J]. 中国医院用药评价与分析, 2008, 8(11): 876~878.

[4] 王文. 我国高血压防治现状和策略[J]. 岭南心血管病杂志, 2010, 16(1): 5~7.

盆腔炎性疾病(pelvic inflammatory disease, PID)是指上生殖道及周围组织的炎症,主要包括子宫内膜炎、输卵管炎,输卵管卵巢囊肿、盆腔腹膜炎,最常见的是输卵管炎。盆腔炎性不孕患者局部炎症细胞因子升高,一方面导致输卵管的粘连阻塞,另外也从免疫途径影响生殖,导致不孕。本研究将探讨盆腔粘连程度与盆腔炎性不孕患者腹腔液、血清TNF- α 的相关性,观察中药联合腹腔镜手术对盆腔炎性不孕患者血清TNF- α 的影响,以探讨其作用机制,为临床应用提供理论依据。

1 临床资料

1.1 一般资料 2008年5月~2009年9月因子宫输卵管造影提示一侧或双侧输卵管炎、通而不畅、阻塞或积水入住广州中医药大学第一附属医院二妇科、广东省第二中医院行腹腔镜手术的不孕患者85例。根据腹腔镜下盆腔粘连程度评分,轻度粘连者42例,随机分为手术组(轻度)20例,手术+中药组(轻度)22例;中度粘连者43例,随机分为手术组(中度)21例,手术+中药组(中度)22例。选取同期因“单纯性卵巢囊肿”住院行腹腔镜手术的患者20例作为非炎症对照组。

手术+中药(轻度)与手术组(轻度)、手术+中药(中度)与手术组(中度)年龄、不孕病史、原发继发不孕情况,差异无显著性意义($P>0.05$),具有可比性。

1.2 诊断标准

1.2.1 不孕诊断标准^[1] 夫妇同居1年以上,性生

[5] Lip GY, Edmunds E, Beevers DG. Should patients with hypertension receive antithrombotic therapy[J]. J Intern Med, 2001, 249(3): 205.

[6] 胡锦章,江牡丹,甘结友. 培哚普利对老年原发性高血压患者血栓前状态的影响[J]. 安徽医药, 2006, 10(2): 97.

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Study on TCM Constitution Prevention Scheme for Hypertension Prothrombotic State

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Abstract: Objective: TCM constitution prevention scheme was used to make an early intervention of the prothrombotic state of hypertension patients (pro - thrombotic state , PTS) and to observe the impact of their blood pressure control , their life quality , their molecular marker levels of hypertension prothrombotic state on the incidence of myocardial infarction and cerebral infarction , and evaluate the feasibility of TCM constitution prevention scheme for the hypertension prothrombotic state. Methods: 240 patients were given with TCM constitution intervention and a control study with western medicine was made through one - year follow - up. Results: The blood pressure control in the constitution group had statistically significant difference ($P < 0.05$) , compared with that of the control group. The life quality of the physical group obviously improved , compared with that of the control group. PTS molecular markers of vWF , GMP - 140 and 11 - DH - TXB2 of the constitution group significantly decreased and AT significantly increased , showing statistically significant difference ($P < 0.05$) , compared with that of the control group. The difference of the myocardial infarction and cerebral infarction rate was statistically significant ($P < 0.05$) . Conclusion: The intervention effect of the TCM constitution scheme for the prothrombotic state of the hypertension patients is significant.

Key words: hypertension prothrombotic state , TCM constitution , early intervention

Effect of TCM Combined Laparoscopy on the Tumor Necrosis Factor Alpha of Pelvic Inflammatory Infertility Patients

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Abstract: Objective: To analyze the correlation of pelvic adhesion degree and pelvic inflammatory infertility with peritoneal fluid and serum tumor necrosis factor alpha (TNF - α) of patients and to observe the effect of TCM combined laparoscopic operation on the blood serum TNF - α of the pelvic inflammatory infertility patients. Methods: 85 patients were collected and randomly divided into 4 groups , i. e. 20 patients in operation group (mild) , 22 in operation plus traditional Chinese medicine group (mild) , 21 in operation group (moderate) , 22 in operation plus traditional Chinese medicine group (moderate) . 20 patients with simple ovarian cyst underwent laparoscopic operation in the same period were collected as non - inflammation control group. Pregnancy patients with 3 and 6 months of each group were observed after the operation and their peritoneal fluid , serum TNF - α level and pelvic adhesion degree were analyzed and the serum TNF - α level of each group was compared before and after the treatment. Results: 1. The postoperative pregnancy rate of moderate adhesion patients in the operation plus traditional Chinese medicine group was 54.5% , and the postoperative pregnancy rate in the operation group was 23.8% . There was significant difference between two groups ($P < 0.05$) . 2. The adhesion degree of the serum TNF - α level and the peritoneal fluid of TNF - α was positively correlated ($P < 0.05$) . The peritoneal fluid , serum TNF - α level and pelvic adhesion degree was positively correlated ($P < 0.05$) . 3. After the treatment , the serum TNF - α in operation plus TCM group (light , moderate) and in the operation group (moderate) were significantly lower than those before the treatment ($P < 0.05$) . The serum TNF - α in the operation plus TCM group (moderate) was significantly lower than that of the operation group (moderate) ($P < 0.05$) . Conclusion: The peritoneal fluid and the serum TNF - α level have a significant positive correlation with the pelvic adhesion degree. TCM combined laparoscopic operation can improve the pregnancy rate of the patients and significantly reduced the serum TNF level of the patients.

Key words: pelvic inflammatory infertility , traditional Chinese medicine , laparoscopy , TNF - α

Effect of Total Glucosides of Paeony and Simvastatin on Rat Peritoneal Function of Peritoneal Fibrosis

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Abstract: Objective: To compare the effect of total glucosides of paeony and simvastatin on the rat peritoneal function of peritoneal fibrosis. Methods: 32 healthy SD rats were selected and randomly divided into 4 groups , 8 rats per group , i. e. blank group , model group , simvastatin group , total glucosides of paeony group. Peritoneal fibrosis models were made with 4.25% of dialysate and intermittent lipopolysaccharide intraperitoneal injection. The simvastatin group was daily administered with 20 mg. kg⁻¹. d⁻¹ gavage of simvastatin and the total glucosides of paeony group were daily fed with total glucosides of paeony gavage for 200 mg. kg⁻¹. d⁻¹. The peritoneal thickness was measured 13 days later. Results: The peritoneal thickness of the model group was the thickest and the peritoneal ultrafiltration volume was the worst , having significant difference ($P < 0.05$) , compared with the other three groups. The peritoneal thickness and the peritoneal ultrafiltration volume of both the simvastatin group and the total glucosides of paeony group had significant difference ($P < 0.05$) , compared with that of the blank group. The comparison of the simvastatin group and the total glucosides of paeony group showed significant difference ($P < 0.05$) . The ultrafiltration volume of the simvastatin group had no significant difference ($P > 0.05$) compared with that of the total glucosides of paeony group. Conclusion: The total glucosides of paeony and simvastatin can partly protect the peritoneal and prevent the occurrence of the peritoneal fibrosis

Key words: peritoneal fibrosis , total glucosides of paeony , simvastatin

An Experimental Study on TCM Foaming Agent on Rabbit Bacterial Vaginitis and Vaginal Mucosa Irritation

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Abstract: Objective: To verify the effect of TCM foaming agent by a certain company on rabbit bacterial and fungal vaginitis. Methods: Rabbit vagina was given foamed agent of different concentrations and control products to observe the samples on the rabbit vaginal irritation. Artificial rabbit bacterial and fungal vaginitis models were made and treated with the TCM foaming agent of different concentrations and the control samples respectively. Results: The TCM foaming agent by the company has certain therapeutic effect on the bacterial and fungal vaginitis with no obvious irritation on the rabbit vagina.

Key words: vaginitis , foaming agent , experimental study