

气功及降压药治疗高血压 426 例疗效和血浆多巴胺- β -羟化酶活性变化

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二十多年来,用现代科学方法对气功在高血压病中的临床疗效和作用原理的研究揭示,气功对降低血压、稳定血压、巩固疗效确有实效^(1,2),气功锻炼对机体内部机能具有多方面的积极调整作用^(3,4)。为了普及和推广气功疗法,我们在实践基础上吸取各家所长,整理修订了以心静体松、动静结合为要领的高血压基本功法,并用于门诊基层防治实践,现将临床观察及实验结果报道如下:

材料和方法

一、对象分组:426例高血压病人选自我所专科门诊及基层防治点,药物调整四周后,舒张压仍在100mmHg以上者作为观察对象,此后药物相对恒定,在此基础上分为两组。A组:气功合并规律性用药组(简称气功组)304例,其中男性280例,女性24例,年龄40~60岁,平均 54.6 ± 8.72 岁。高血压分期II期者276例,III期者28例。B组:规律性用药对照组(简称对照组)122例,其中男性102例,女性20例。年龄40~60岁,平均 53.7 ± 9.25 岁。高血压分期II期者110例,III期者12例。

二、练功方法:按我所修订的以心静体松、动静结合为要领的高血压基本功法⁽⁵⁾,采用集中讲授(每周一次,共8次),分散自练(每天1~2次,每次20~30分钟),定期检查,不断强化的方式进行。

三、随访观察:学习气功8周后由专人负责每两周随访一次,每次包括诊病、讲课和练功三方面内容,以加强实践和指导,并及时予以必要的医务监督,对照组除气功锻炼外其它措施均同气功组。

四、疗效判定:取调整恒定药物后四周血压平均值作为治疗前血压,取一年后同期一个月的血压平均值作为治疗后血压,以治疗后舒张压下降 ≥ 20 mmHg

为显效,下降10~19mmHg为有效,下降 < 10 mmHg为无效。

五、血浆多巴胺- β -羟化酶(D β H)测定及观察:血浆D β H活性测定根据Nagatsun法⁽⁶⁾与郑氏法⁽⁷⁾结合我所实验室条件改进(单位:微克分子/分/升)。

1.检测的89例高血压病人均系高血压II期,年龄40~60岁,其中练功一年以上者(练功组)26例,未练功者(高血压组)63例,并以年龄相近的正常健康者(正常健康组)39例作对照测定。

2.26例练功者采用交叉对比自身对照方式进行一次气功(或休息)过程中D β H活性测定,实验安排在上午8~9时,病人进入气功室先休息半小时,静脉采血1ml,然后开始气功锻炼(或休息)20~30分钟重复采血一次,以资对比。

结 果

一、疗效比较:426例随诊一年观察,气功组疗效明显优于对照组(见附表),经统计学处理两组总有效率有显著差别($P < 0.01$)。

附表 气功及规律性降压治疗一年疗效比较

组 别	例数	显 效		有 效		无 效		总有效率	
		例数	%	例数	%	例数	%	例数	%
气 功 组	304	129	42.5	133	43.7	42	13.8	262	86.2
对 照 组	122	27	22.1	55	45.1	40	32.8	82	67.2

二、正常健康组、高血压组、气功组D β H活性:三组血浆D β H活性分别为 18.07 ± 1.59 IU、 19.62 ± 1.42 IU和 19.71 ± 1.47 IU,(均数 \pm 标准误)经统计学处理各组间均无差异($P > 0.05$)。

三、气功过程中D β H活性变化观察:26例气功组高血压病人练功前平均血浆D β H活性 19.71 ± 1.47 IU,练功后平均降低 1.47 ± 0.69 IU ($7.40 \pm 3.27\%$),

经自身对比 t 测验气功前后血浆 D β H 活性变化幅度有显著差别 ($P < 0.05$)。休息对照观察时休息前平均血浆 D β H 活性为 19.29 ± 1.47 IU, 休息后平均升高 0.57 ± 0.66 IU ($3.39 \pm 3.38\%$), 休息前后自身对比血浆 D β H 活性变化幅度无显著差别 ($P > 0.05$)。

若以气功与休息相比, 两种状态下 D β H 活性变化幅度无论绝对值或变化百分数均有显著差别 ($P < 0.05$)。

讨 论

一、从中西医结合研究实践, 我们体会高血压病的发生病机在于“稳定血压在正常范围的相对平衡机理遭受破坏所致”。根据这一观点降压药物对防治高血压固然是一种有效的措施, 但欲使血压下降且保持稳定还必须在转化内因和增强病人自身的抗高血压能力上下功夫, 从气功综合治疗高血压的良好效果提示, 气功在降低血压、纠正机体平衡失调、巩固疗效方面具有独特作用, 前瞻性的 135 例四年疗效对比观察结果差别非常显著, 基本肯定了气功有稳定血压, 巩固疗效的作用⁽²⁾。二十多年来计 1,877 例反复验证证明: 气功治疗高血压确有实效。本文 426 例一年疗效对比观察, 气功组总有效率 86.2%, 对照组总有效率仅 67.2%, 气功治疗高血压的临床疗效再次得到肯定, 高血压基本功法能在群防群治中普及和推广。

二、中医理论认为, 高血压病的形成是由于机体阴阳平衡失调, 导致上实下虚、阴虚阳亢等一系列征象。临床观察发现练功后上述征象可得到不同程度纠正, 下元充实, 头脑清醒, 气血调和, 血压下降。以往的实验资料说明气功有调整机体内部机能的积极作用: 脑电波积分分析显示练功过程中脑电 α 波积分值明显增加, 部份病例伴有 θ 波积分值的增加, 提示练功时大脑皮层机能活动趋向于主动性内抑制过程, 皮层有序化程度提高⁽⁸⁾。红外热象图动态观察显示练功过程中采用不同功法时, 体表相应部位红外辐射增加, 图象辉度增亮, 血循环改善, 气血调和⁽⁹⁾,

皮肤电位、前庭时值测定提示练功时过亢的交感神经活动趋向降低, 植物神经系统功能得到相应的调整。D β H 是去甲肾上腺素合成中必需的酶, 不少实验表明血浆 D β H 活性可以反映交感神经功能, Stone 发现高血压病人经放松疗法半年后血浆 D β H 活性明显下降⁽¹⁰⁾, 根据本文检测结果高血压病人血浆 D β H 活性略高于正常健康人, 但气功组未显示较对照组低, 考虑 D β H 测定个体差异较大, 组间对比难以反映其活性变化的情况, 故我们进一步作了同一群体自身阶段性对照检测和一次气功 (或休息) 前后对比检测, 发现气功前后 D β H 变化幅度有显著差别, 而休息前后 D β H 活性变化幅度无显著差别, 说明气功确能降低过亢的交感神经活动, 促使失衡的植物神经功能得到调整, 从一个侧面反映了气功平秘阴阳、维持机体动态平衡的作用原理。

参 考 文 献

1. 上海市高血压研究所等: 气功疗法治疗高血压病的研究. 中医杂志 10: 37, 1959
2. 邝安堃等: 气功及规律性降压治疗高血压病 135 例四年疗效比较. 中华内科杂志 3: 189, 1979
3. 邝安堃等: 在高血压病中研究气功原理——对气功平衡阴阳、调和气血、疏通经络作用的初步探讨. 中医杂志 10: 7, 1980
4. 邝安堃等: 用现代科学方法在高血压病中对气功临床疗效和作用原理研究的初步探讨. 全国气功学术交流会资料, 1981
5. 蒋敏达等: 《气功强身法》上海教育出版社, 1980
6. Nagatsn T, et al: Photometric assay of Dopamine- β -Hydroxylase activity in human blood. Clin Chem 18: 980, 1972
7. 郑肖剑等: 针麻手术病人血浆多巴胺- β -羟化酶活性的变化. 针刺麻醉资料汇编 (中国医学科学院), 104 页, 1979
8. 赵光胜等: 气功及休息前后脑电波积分值的对比分析. 中医杂志 12: 20, 1979
9. 王崇行等: 气功过程中红外热图初步观察. 上海中医药杂志 6: 34, 1980
10. Stone RA, et al: Psychotherapeutic control of hypertension. N Engl J Med 294: 80, 1976

全国胃癌协作组中医药、中西医结合专业组会议在京召开

会议于 1982 年 5 月 26~27 日在北京召开。与会 35 名代表。交流了七个专题组的科研协作进展。1. 脾胃方临床及实验研究。2. 乌头碱治疗胃癌的研究。3. 鸦胆子治疗胃癌的研究。4. 159 方案治疗胃癌的研究。5. 萎缩性胃炎的中医药 (或针灸) 的治疗研究。6. 胃癌

辨证论治的研究。7. 中医药、中西医结合治疗胃癌的基础理论研究。并再次落实了协作规划, 为第三届全国胃癌会议准备技术资料。

(李敏民)

A Clinical Observation on 546 Cases of Coronary Heart Disease Treated with Cyclovirobuxine D

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Cyclovirobuxine D is a kind of active constituent extracted from Chinese *Buxus microphylla* Sieb et Zucc. var. *sinica* Rehd. et Wils. In recent years, pharmacologic tests and clinical applications have proved that it can be used to treat coronary heart disease and cardiac arrhythmia. The analysis of these cases are as follows:

Cyclovirobuxine D has anti-angina effect. But of 360 cases of angina pectoris, it was effective in 323 cases having a curative rate of 89.7%. Among 146 cases of the classified groups, it was effective in 44 cases (88%) in the mild angina pectoris group (50 cases), 55 cases (94 %) in the moderate group (58 cases), and 36 cases (95%) in the severe group (38 cases). Evidently the curative effect on the severe group was the best of the three.

Among 499 cases of the improved electrocardiogram, it was effective in 150 cases, having a curative rate of 30 %, and 182 cases were improved (36.5%). This amounts to a total of 332 cases with a curative rate of 66.5%. This is obviously higher than those of the comparative groups.

Cyclovirobuxine D has an obvious action against cardiac arrhythmia, particularly ventricular extrasystole. Out of 115 cases of arrhythmia in the above group, it was effective in 51 cases with a curative rate of 44.3%; 33 cases were improved (28.7%); and 31 cases were ineffective (27.0%). This amounts to a total of 84 cases with a curative rate of 73.0%.

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The Efficacy of Qigong (Breathing Exercise) and Antihypertensive Drug Treatment in 426 Hypertensive Patients and the Change of Plasma Dopamine- β -Hydroxylase Activity

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Clinical and experimental studies on Qigong (气功 , breathing exercise) treatment for hypertension indicate that breathing exercise may actively regulate the internal function of human body, and its efficacy in the treatment of hypertension may be claimed as reliable.

426 hypertensives under uninterrupted and consistent medication were divided into two groups. The first is the Qigong group (304 cases), i.e., Qigong with regulatory medication, which was followed up for one year. This group had a total effective rate of 86.2%, among which the rate of marked efficacy was 42.5%. The control group (122 cases) with regulatory medication only was also followed up for one year. However, its total effective rate and the rate of marked efficacy were 67.2% and 22.5% respectively. This indicates that the efficacies for these two groups do differ significantly ($P < 0.01$).

Many experimental data suggest that plasma dopamine- β -hydroxylase (D β H) activity may reflect the sympathetic nervous function. 26 hypertensives (2nd stage) with breathing exercise over one year were investigated for their plasma D β H activity by means of cross-over and self-control after and before breathing exercise and rest. D β H activity before breathing exercise and rest is 19.71 ± 1.47 IU (mean \pm SEM) and 19.29 ± 1.47 IU respectively. It decreases by 1.47 ± 0.69 IU after breathing exercise but increases by 0.57 ± 0.66 IU after rest. The difference between the values of change of plasma activity after and before breathing exercise is statistically significant ($P < 0.05$). However, the difference between the values after and before rest is relatively insignificant ($P > 0.05$). The differences of the absolute values of change, or, between the percentages of change of D β H activity in the two groups are both statistically significant ($P < 0.05$). It is suggested that breathing exercise can reduce the excitability of sympathetic nervous activity and regulate the function of unbalanced autonomous nervous system.

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A Further Investigation on Pathogeny, Pathology and Therapy in Infantile Diarrhoea by Means of TCM-WM

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It is held in traditional Chinese medicine that diarrhoea is caused by "disorders of spleen and stomach function" (脾胃失调) and "gathering and brewing of water and dampness in the body" (水湿内生). Experiments and research of modern medicine have shown that disturbances of enteric function (excessive secretion or malabsorption) which lead to water retention in intestine are the cause of infectious diarrhoea. This has created the condition for a further investigation of pathogeny and pathology by means of TCM-WM, and offered scientific evidence for the theory of TCM.