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针灸联合推拿手法对椎动脉型颈椎病患者疗效及其对血流动力学和颈椎活动度的影响*

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摘要 目的:探讨针灸联合推拿手法对椎动脉型颈椎病(CSA)患者的疗效及其对血流动力学和颈椎活动度的影响。**方法:**选取2015年9月-2017年9月期间山东省医学科学院颈肩腰腿痛医院收治的CSA患者900例为研究对象。根据随机数字表法将患者分为对照组(n=450)与研究组(n=450)。对照组给予针灸治疗,研究组则在对照组的基础上联合推拿手法治疗,两组患者均治疗14d,同时进行为期3个月的随访。观察两组患者临床疗效、症状评分、血流动力学以及颈椎活动度等变化情况。**结果:**治疗后研究组患者临床总有效率为96.44%(434/450),显著高于对照组的83.78%(377/450)($P<0.05$)。两组患者治疗后眩晕、恶心或呕吐、头痛、肩颈痛、旋颈试验、生活及工作评分均较治疗前升高,且研究组高于对照组($P<0.05$)。两组治疗后平均血流速度(TMFV)、收缩期峰值血流速度(PSV)均较治疗前升高,搏动指数(PI)、阻力指数(RI)均较治疗前降低,且研究组治疗后TMFV、PSV高于对照组,PI、RI低于对照组($P<0.05$)。两组患者治疗3个月后前屈、后伸、左侧屈、右侧屈、左侧旋以及右侧旋活动度均较治疗前升高,且研究组后伸、左侧屈、右侧屈、左侧旋以及右侧旋活动度高于对照组($P<0.05$)。**结论:**针灸联合推拿手法治疗CSA效果优于单用针灸治疗,对患者症状评分、血流动力学以及颈椎活动度均有改善作用,可进一步推广应用。

关键词:针灸;推拿手法;椎动脉型颈椎病;疗效;血流动力学;颈椎活动度

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Effect of Acupuncture Combined With Massage on Hemodynamics and Cervical Activity in the Patients with Cervical Spondylosis of Vertebral Artery Type*

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ABSTRACT Objective: To investigate the effect of acupuncture combined with massage on hemodynamics and cervical activity in the patients with cervical spondylosis of vertebral artery type (CSA). **Methods:** 900 cases of CSA patients who were treated in Neck and Shoulder Pain Hospital of Shandong Academy of Medical Sciences from September 2015 to September 2017 were selected as the research object. The patients were randomly divided into control group (n=450) and study group (n=450) according to the number table method. The control group was treated with acupuncture, and the study group was combined with massage on the basis of the control group. The patients were treated with 14d, followed-up for 3 months. The changes of clinical efficacy, symptom score, hemodynamics and cervical activity in the two groups were observed. **Results:** The total clinical effective rate of the study group was 96.44% (434/450), which was significantly higher than 83.78% (377/450) of the control group ($P<0.05$). Vertigo, nausea and vomiting, headache, shoulder neck pain, neck rotation test, life and work scores of the two groups after treatment were all higher than those before treatment, and the study group was higher than that of the control group ($P<0.05$). The average velocity of blood flow (TMFV), peak systolic blood velocity (PSV) after treatment in the two groups were all higher than those before treatment, the pulsation index (PI), the resistance index (RI) were lower than those before treatment, the TMFV and PSV in the study group were higher than those of the control group, PI and RI were lower than those of the control group ($P<0.05$). The flexion, extension, left flexion, right flexion, left rotation and right rotation of the two groups 3 months after treatment were all higher than those before treatment, the extension, left flexion, right flexion, left rotation and right rotation activity of the study group were higher than those of the control group ($P<0.05$). **Conclusion:** The effect of acupuncture combined with massage in the treatment of CSA is better than that of acupuncture alone, can improve the patient's symptom score, hemodynamics, and cervical spine activity, it can be further popularized and applied.

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Key words: Acupuncture; Massage; Cervical spondylosis of vertebral artery type; Curative effect; Hemodynamics; Cervical activity

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前言

椎动脉型颈椎病 (cervical spondylosis of vertebral artery type, CSA) 是由各种机械性或者动力性因素致使椎动脉受到刺激或压迫, 导致椎 - 基底动脉供血不足, 进而引发一系列综合征^[1-3]。临床多表现为眩晕、恶心、呕吐、头颈部疼痛以及猝倒等症状, 严重影响患者的生活质量^[4,5]。随着我国人口老龄化的速度加快, 且现代工作生活中频繁接触手机、计算机等电子产品, 使得 CSA 的发病率逐年递增^[6]。因此, 寻找有效的治疗方法根治 CSA 具有重要的临床意义。临床上常用采用扩张血管药物治疗 CSA^[7], 相关学者研究报道, 在药物治疗的基础上采用针灸、牵引以及按摩等方式治疗 CSA, 可获得更好的治疗效果^[8,9]。然而 CSA 发病机制较为复杂, 上述方式也难以达到理想的治疗效果。鉴于此, 本研究通过探讨针灸联合推拿手法对 CSA 患者的疗效及其对血流动力学和颈椎活动度的影响, 以期为临床治疗 CSA 提供数据支撑, 现报道如下。

1 资料与方法

1.1 临床资料

选取 2015 年 9 月 -2017 年 9 月期间山东省医学科学院颈肩腰腿痛医院收治的 CSA 患者 900 例为研究对象。纳入标准^[10,11]: (1) 所有患者均符合中医诊断标准《中医病证诊断疗效标准》以及西医诊断标准《椎动脉型颈椎病诊断标准》中有关 CSA 的相关诊断依据并确诊; (2) 无神经病史、意识清晰者; (3) 患者及其家属知情本研究并签署知情同意书。排除标准: (1) 伴有其他分型的颈椎病者; (2) 锁骨下动脉缺血综合征患者; (3) 妊娠或哺乳期妇女; (4) 其他疾病如耳源性、外伤性、脑源性以及颅内肿瘤、神经管能性等引起的眩晕症患者; (5) 伴有心、肝、肾等脏器功能严重障碍者。根据随机数字表法将患者分为对照组 (n=450) 与研究组 (n=450), 其中对照组男 181 例, 女 269 例, 年龄 22-55 岁, 平均 (34.56±4.78) 岁; 病程 0.5-8 年, 平均 (4.36±1.28) 年。研究组男 173 例, 女 277 例, 年龄 21-53 岁, 平均 (33.28±5.21) 岁; 病程 0.6-9 年, 平均 (5.01±1.47) 年。两组患者一般资料比较无统计学差异 ($P>0.05$), 均衡可比。本次研究已获得医院伦理委员会审批。

1.2 治疗方法

两组患者均给予常规的中药治疗, 在此基础上, 对照组给予针灸治疗, 患者体位取坐位或者俯卧位, 取百会、风池、颈夹脊、太冲、内关、天柱以及晕听区等穴位, 上述选取穴位均进行常规消毒, 选用直径 0.35 mm、长度 40 mm 毫针, 针刺手法采用平补平泻方式。刺针后均留针 25 min, 风池、颈夹脊以及晕听区穴位加用疏密波电针治疗。1 次/d, 7d 为一个疗程, 共治疗两个疗程。研究组则在对照组的基础上联合推拿手法治疗, 推拿手法如下: 患者取端坐位, 医者站立在患者后方, 双手中指指腹按压患者风池穴, 力量增加需循序渐进, 待患者该处穴位感到酸胀感时, 维持此种力度行逆时针按揉, 同时以右手拇指顺时针

和逆时针按揉患者百会穴, 上述按揉 100 次左右, 再以拇指偏峰为着力点, 由印堂穴至百会穴使用一指禅手法。颈部以及肩部肌肉采用提拿、揉捏等手法, 两手拇指置于两侧风池穴, 其余四肢朝下置于下颌, 采用由轻到重的力度向上拔伸, 随之慢慢将患者头部左右旋转 30-40 度, 重复 2 至 3 次。每次推拿治疗 25-30 min, 1 次/d, 14d 为一个疗程, 共治疗一个疗程。治疗结束后以电话随访或者门诊复查等方式随访 3 个月。

1.3 观察指标

(1) 临床疗效 比较两组患者治疗后 (治疗 14d 后) 的治疗效果。疗效判定标准如下^[12]: 临床症状消失, 工作生活恢复正常, 随访期间未复发者为治愈; 临床症状明显减轻, 不影响工作生活, 随访期间偶有复发, 经治疗后病情缓解者为好转; 临床症状无变化或者稍微减轻, 工作生活仍受到影响者为无效。总有效率 = 治愈率 + 好转率。(2) 症状评分 观察两组患者治疗前后的症状评分变化, 将各项的 2 个次症分为 4 个等级, 其中主症 0、2、4、6, 次症 0、1、2、3, 中医症状评分为两项计分的总和, 分值越高, 效果越好。(3) 血流动力学 观察两组患者治疗前后的血流动力学变化, 采用 Philips iE 33 经颅彩色多普勒超声, 检测椎动脉 - 基底动脉平均流速 (time-mean flow velocity, TM-FV)、收缩期峰值流速 (peak systolic velocity, PSV)、血管搏动指数 (pulsatility index, PI) 以及阻力指数 (resistance index, RI)。(4) 颈椎活动度 观察两组患者治疗前、治疗 3 个月后的颈椎活动度情况, 采用头盆式颈椎活动仪进行测量, 包括前屈、后伸、左侧屈、右侧屈、左侧旋以及右侧旋。度数越高, 疗效越佳。

1.4 统计学方法

采用 SPSS 25.0 软件进行数据处理, 计量资料用 ($\bar{x} \pm s$) 表示, 采用 t 检验, 计数资料用 [n(%)] 表示, 采用 χ^2 检验, 检验标准设置为 $\alpha=0.05$ 。

2 结果

2.1 两组患者临床疗效比较

治疗后研究组患者临床总有效率为 96.44% (434/450), 显著高于对照组的 83.78% (377/450) ($P<0.05$)。详见表 1。

2.2 两组患者症状评分比较

两组患者治疗前眩晕、恶心或呕吐、头痛、肩颈痛、旋颈试验、生活及工作评分比较无差异 ($P>0.05$); 两组患者治疗后上述指标均较治疗前升高, 且研究组高于对照组 ($P<0.05$)。详见表 2。

2.3 两组患者血流动力学比较

两组患者治疗前 TMFV、PSV、PI、RI 比较无差异 ($P>0.05$); 两组治疗后 TMFV、PSV 均较治疗前升高, PI、RI 均较治疗前降低, 且研究组治疗后 TMFV、PSV 高于对照组, PI、RI 低于对照组 ($P<0.05$)。详见表 3。

2.4 两组患者颈椎活动度比较

两组患者治疗前前屈、后伸、左侧屈、右侧屈、左侧旋以及右侧旋活动度比较差异无统计学意义 ($P>0.05$); 两组患者治

疗3个月上述指标均较治疗前升高,且研究组后伸、左侧屈、

右侧屈、左侧旋以及右侧旋活动度高于对照组($P<0.05$)。详见

表1 两组患者临床疗效比较[n(%)]

Table 1 Comparison of the clinical efficacy of the two groups[n(%)]

Groups	n	Cure	Better	Invalid	Total effective rate
Control group	450	58(12.89)	319(70.89)	73(16.22)	377(83.78)
Study group	450	159(35.33)	275(61.11)	16(3.56)	434(96.44)
χ^2	-				40.512
P	-				0.000

表2 两组患者症状评分比较($\bar{x}\pm s$,分)

Table 2 Comparison of symptom scores in two groups ($\bar{x}\pm s$, scores)

Groups	Vertigo		Nausea and vomiting		Headache		Shoulder neck pain		Neck rotation test		Life and work scores	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment
Control group	4.57±	9.10±	4.28±	5.28±	1.64±	1.85±	3.12±	3.58±	1.20±	2.75±	1.89±	3.14±
(n=450)	0.52	0.92*	0.59	0.57*	0.19	0.26*	0.23	0.25*	0.22	0.35*	0.18	0.21*
Study group	4.59±	13.27±	4.33±	5.72±	1.67±	2.12±	3.16±	3.93±	1.18±	3.06±	1.82±	3.54±
(n=450)	0.49	1.26*	0.62	0.48*	0.28	0.22*	0.37	0.32*	0.17	0.27*	0.22	0.23*
t	0.594	56.700	1.239	12.526	1.881	16.817	1.948	18.284	1.526	14.877	1.204	27.245
P	0.553	0.000	0.216	0.000	0.060	0.000	0.052	0.000	0.127	0.000	0.229	0.000

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

表3 两组患者血流动力学比较($\bar{x}\pm s$)

Table 3 Comparison of hemodynamics in two groups ($\bar{x}\pm s$)

Groups	TMFV(cm/s)		PSV(cm/s)		PI		RI	
	Before	After	Before	After	Before	After	Before	After
	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment
Control group(n=450)	22.69± 5.46	24.47± 4.24*	52.58± 5.36	54.87± 6.24*	1.29± 0.31	0.93± 0.27*	0.73± 0.17	0.62± 0.12*
Study group(n=450)	23.04± 4.57	27.79± 5.05*	52.69± 6.48	62.19± 5.18*	1.31± 0.36	0.60± 0.35*	0.74± 0.13	0.43± 0.03*
t	1.043	10.681	0.277	19.147	0.893	15.836	0.991	32.585
P	0.297	0.000	0.781	0.000	0.372	0.000	0.332	0.000

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

表4 两组患者颈椎活动度比较($\bar{x}\pm s$)

Table 4 Comparison of cervical activity in the two groups ($\bar{x}\pm s$)

Groups	Flexion(°)		Extension(°)		Left flexion(°)		Right flexion(°)		Left rotation(°)		Right rotation(°)	
	Before	3 month	Before	3 month	Before	3 month	Before	3 month	Before	3 month	Before	3 month
	treatment	after treatment	treatment	after treatment	treatment	after treatment	treatment	after treatment	treatment	after treatment	treatment	after treatment
Control group	35.45±	48.78±	31.38±	43.78±	28.31±	42.35±	28.92±	44.28±	45.32±	64.98±	47.82±	64.54±
(n=450)	16.38	12.92*	11.87	5.65*	9.09	7.36*	10.23	5.45*	6.01	7.35*	8.78	7.01*
Study group	36.23±	49.71±	30.24±	47.39±	28.49±	45.72±	29.96±	47.23±	44.98±	70.56±	46.92±	71.34±
(n=450)	17.67	11.56*	10.47	6.02*	8.68	8.42*	8.37	7.12*	7.97	5.67*	9.12	6.93*
t	0.687	1.138	1.528	9.276	0.304	6.392	1.669	6.979	0.723	12.751	1.508	14.634
P	0.492	0.255	0.127	0.000	0.761	0.000	0.095	0.000	0.470	0.000	0.132	0.000

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

3 讨论

CSA 为颈椎疾病中常见的一类分型,其主要病理基础为颈椎间盘退变,从而导致骨质增生、上关节增生肥大,继而对椎动脉产生压迫,致使脑部供血不足,引发患者血流动力学异常,造成了眩晕、头痛、恶心等临床症状^[13-15]。中医学认为,该病是由肝肾不足、气血亏虚、劳倦内伤以及痰浊中阻等所致。目前临床已证实中医针灸、推拿以及牵引疗法在多种疾病中均能获得较好的治疗效果^[16-18]。针灸具有疏通阳经经气、调节阴阳及脏腑气血等功能,而针灸后加之推拿手法,更易发挥舒筋活血、理气止痛的效用^[19-21]。

本文针对 CSA 患者进行对照试验,结果显示,研究组患者治疗后的临床总有效率为 96.44%,显著高于对照组患者的 83.78%($P<0.05$),且两组患者治疗后眩晕、恶心或呕吐、头痛、肩颈痛、旋颈试验、生活及工作评分均较治疗前升高,且研究组高于对照组($P<0.05$)。提示针灸联合推拿手法治疗 CSA 效果优于单用针灸治疗,针灸作为祖国医学的传统发明,已被证实多项疾病的治疗中效果显著^[22,23],再加上推拿手法以舒经活血、整复错位为主要治疗原则,通过一定的力学刺激作用,在头、颈、肩等穴位施以揉、滚、按、捏等手法,从而达到改善椎动脉处的血液循环的目的,最终提高临床治疗效果以及临床症状评分^[24,25]。另外,两组治疗后 TMFV、PSV 均较治疗前升高,PI、RI 均较治疗前降低,且研究组治疗后 TMFV、PSV 高于对照组,PI、RI 低于对照组($P<0.05$)。表明针灸联合推拿手法对 CSA 患者血流动力学方面改善效果更好,TMFV、PSV 是判断椎动脉患者脑部供血状态的常用指标,PI、RI 则反映了 CSA 患者疾病症状的生理状态及椎动脉弹性。CSA 患者经针灸联合推拿手法治疗后,患者局部血流速度明显增加,机体血液循环得到明显改善,促进脑部供血。同时本研究还显示,两组患者治疗 3 个月后前屈、后伸、左侧屈、右侧屈、左侧旋以及右侧旋活动度均较治疗前升高,且研究组后伸、左侧屈、右侧屈、左侧旋以及右侧旋活动度高于对照组($P<0.05$)。前屈、后伸、左侧屈、右侧屈、左侧旋以及右侧旋均是反应患者颈椎活动度的主要观察指标,由结果可知上述指标均得到了有效缓解,提示针灸联合推拿手法治疗可有效改善 CSA 患者颈椎活动度。这主要是由于推拿可使患者颈肩部肌肉完全放松,达到疏通经络的作用,同时通过按摩穴位,纠正颈椎解剖异常,促进颈部气血恢复正常运行^[26-28]。另外针灸可起升清阳、益气养血的功效,显著改善患者头晕目眩等症状,二者联合使用,发挥较好的协同作用,促进机体代谢,改善组织营养,从而发挥较好的治疗效果^[29,30]。

综上所述,针灸联合推拿手法治疗 CSA 患者,效果满意,可显著改善患者症状评分、血流动力学,同时促进患者颈椎活动度的恢复,适于临床推广应用。

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