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康复训练、针灸联合丹参川芎嗪穴位注射对脑梗死患者肩手综合征的影响

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摘要 目的:探讨康复训练、针灸联合丹参川芎嗪穴位注射对脑梗死患者肩手综合征的影响。**方法:**选取 2014 年 3 月至 2016 年 3 月于我院诊治的脑梗死后肩手综合征(SHS)患者 82 例,随机平均分为 A、B 组各 41 例。A 组患者予综合药物治疗、针灸及康复训练,B 组在 A 组基础上给予丹参川芎嗪穴位注射治疗。分析比较两组患者治疗前后的上肢运动功能评分(FMA)、数字疼痛评分(NRS)、肩关节肿胀程度、肩关节活动度(ROM)、神经功能缺损评分(CNFDS)、日常生活活动能力(MBI)和生活质量评分(WHOQOL)。**结果:**治疗后,两组患者的 NRS 评分、肩关节肿胀程度、上肢 CNFDS 评分均较治疗前显著降低,上肢 FMA 评分、MBI、WHOQOL 评分、各个范围 ROM 均明显增加,且 B 组以上指标较 A 组改善更明显($P<0.05$)。**结论:**康复训练、针灸联合丹参川芎嗪穴位注射治疗脑梗死后肩手综合征疗效显著优于药物、针灸治疗及康复训练。

关键词:脑梗死;肩手综合征;丹参川芎嗪;康复训练;针灸

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Impact of Rehabilitation Training, Acupuncture-moxibustion Combined with Danshen Chuanxiongqin Acupoint Injection on the Patients with Shoulder-hand Syndrome after Cerebral Infarction

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ABSTRACT Objective: To observe the impact of rehabilitation training, acupuncture-moxibustion combined with Danshen Chuanxiongqin acupoint injection on the patients with shoulder-hand syndrome (SHS) after cerebral infarction (CI). **Methods:** 82 patients with SHS after CI from March 2014 to March 2016 in our hospital were randomly divided into the group A and the group B ($n=41$). Patients in the group A received comprehensive drug therapy, acupuncture and rehabilitation training, the group B was given Danshen Chuanxiongqin acupoint injection therapy based on the group A. Before and after treatment, the upper limb movement function score (FMA), digital pain score (NRS), the degree of swelling in the shoulder joint, shoulder joint of motion (ROM), and neural function defect scale (CNFDS), daily life activities ability (MBI) and quality of life scores (WHOQOL) of patients in two groups were compared and analyzed. **Results:** After treatment, the scores of NRS, shoulder swelling, upper extremity CNFDS were significantly higher than those before treatment, the ROM, while the upper extremity FMA, MBI and WHOQOL of both groups were significantly decreased ($P<0.05$), these index improved more significantly in group A than those of group B ($P<0.05$). **Conclusion:** Rehabilitation training, acupuncture-moxibustion combined with Danshen Chuanxiongqin acupoint injection was more effective in the treatment of SHS after cerebral infarction than rehabilitation training and acupuncture-moxibustion.

Key words: Cerebral infarction; Shoulder-hand syndrome; Acupoint injection; Danshen Chuanxiongqin; Rehabilitation training; Acupuncture and moxibustion

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前言

肩手综合征(Shoulder-hand syndrome, SHS)是中风后常见

并发症之一,发生率约占偏瘫患者的 1/8,好发于 40-50 岁女性,多为单侧发病^[1]。SHS 也是一种反射性交感神经营养障碍性疾病,具有病程长、反复发作等特点。许多脑梗死患者虽然在早期治疗后下肢步行能力得到了恢复,但因遗留的肩手综合征,上肢功能的恢复和生活质量受到严重影响,并且若不积极治疗则可能导致永久性手或手指畸形^[2,3]。当前临床上对于肩手综合征的治疗国内外暂无明确有效的方法,治疗方案及标准也未统

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一,目前主要提倡早期介入的综合疗法,主要遵循消肿止痛、舒经通络、改善血液循环和缓解肌肉痉挛等原则,常用方法有药物治疗、局部封闭、星状神经节阻滞、针灸、推拿、理疗等^[4]。本研究主要探讨了康复训练、针灸联合丹参川芎嗪穴位注射治疗脑梗死后肩手综合征对患者的影响,做详细报道如下。

1 资料与方法

1.1 研究对象

本研究采用前瞻性研究,研究已经过我院伦理委员会批准同意,并获得患者本人签署的知情同意书。研究对象选自 2014 年 3 月 -2016 年 3 月期间于我院神经内科进行治疗的脑梗死

后肩手综合征(SHS)患者,共 82 例。纳入标准:(1)经临床、影像检查确诊为脑梗死,符合《中国急性缺血性脑卒中诊治指南》^[5]中相关诊断标准,且为首次发病;(2)SHS 符合《脑卒中的康复评定和治疗》^[6]中相关诊断标准,发生在脑梗死后 0.5-6 个月;(3)患者神志清楚,可配合体格检查及量表评定。排除标准:(1)短暂性脑缺血发作(TIA)、出血性脑血管病、可逆性的或其他疾病引起的神经功能缺损;(2)合并其他关节病、血液系统疾病、内分泌疾病、严重肝肾功能不全、心脑血管等器质性病变等。将 82 例患者进行分组,按照住院号以随机数字表法平均分为 A 组和 B 组各 41 例。比较两组患者的临床基本资料,差异无统计学意义($P>0.05$),具有可比性,具体见表 1。

表 1 两组患者的临床资料对比($n, \bar{x} \pm s$)

Table 1 Comparison of the clinical data of patients between two groups ($n, \bar{x} \pm s$)

Groups	Age(year)	Gender(male/female)	Course of disease (month)	Clinical stage (stage I / II)	Diameter of infarcts (cm)
Group A($n=41$)	57.2 $\pm$ 6.7	27/14	3.7 $\pm$ 2.6	37/4	2.1 $\pm$ 0.4
Group B($n=41$)	59.1 $\pm$ 5.8	29/12	3.4 $\pm$ 3.5	38/3	2.2 $\pm$ 0.6
P	0.482	0.948	0.255	0.932	0.574

1.2 治疗方法

A 组患者均接受常规药物治疗、针灸及康复训练。B 组在 A 组基础之上接受丹参川芎嗪穴位注射治疗。所有治疗进行 1 个月。(1)常规药物治疗:包括消炎镇痛、调控血压、降脂、抗血小板凝集及其他对症和支持治疗。(2)针灸:使用电针针刺患肢,之后可接电针灸仪,刺激上肢肌群。对于上肢 Brunstrom I 期患者,穴位选择风池、尺泽、内关、合谷、肩髃等;对于上肢 Brunstrom II-III 期患者,穴位选择风池、肩髃、合谷、手五里、曲池、臂臑等。每日 1 次,每次留针 20 min。(3)康复训练:每日 2 次,每次 0.5 h。① 正确摆放体位:患者卧位时采取健侧卧位,充分伸展肘关节;坐位时避免患侧手指关节、腕关节、下肢下垂或屈曲,给予腕、肘部稳定支撑。② 被动运动:对患者进行肩关节、肘关节、腕关节、指间关节的前屈后伸、内收外展、旋转等活动,注意不要引起疼痛。③ 主动运动:患者卧位时双上肢进行 Bobath 握手上举、抓握训练;每天训练日常生活活动包括穿衣、梳洗、进食等。(4)穴位注射:使用一次性注射器抽取丹参川芎嗪注射液 1 支(生产厂家:贵州拜特制药有限公司,批准文号:国药准字 H52020959,规格:5 mL/支),常规局部皮肤消毒,持针扎入穴位,慢慢推进或上下提插,待针下有“得气”感后,回抽无血即可将药推入。穴位选择肩前、肩贞、肩髃、肩髃、天宗、阿是穴等,每穴注射 1-2 mL。每日 1 次,每 3 日一次,共注射 10 次。

1.3 评价指标

在治疗前和治疗 1 个月后,笔者采取单盲法,对患者的以下临床指标进行评定。

1.3.1 疼痛程度、肩关节肿胀程度及活动度 采用数字疼痛评分量表(NRS)测评患者疼痛程度,0-10 分,数字越大,代表疼痛程度越高;采用排水法测定肩关节肿胀程度,肿胀程度 = 患侧手体积 - 健侧手体积;肩关节活动度(ROM)评定通过测定患者肩关节前屈、后伸、外旋、内旋、外展、内收的自主活动范围。

1.3.2 运动功能和神经功能 采用简式 Fugl-Meyer 运动功能

评定量表(FMA),测定上肢的 FMA 分数,总分 66 分。分数越高,代表运动功能越好。采取脑卒中临床神经功能缺损程度评分量表(CNFDs)评定患者神经功能,总分 45 分,分数越低,代表神经功能越好。

1.3.3 日常生活活动能力和生活质量 采用改良 Barthel 指数评定量表(MBI)评定日常生活活动能力,总分 100 分,分数越高,代表日常生活活动能力越好。采用世界卫生组织生活质量评定简表(WHOQOL)评定生活质量,总分 100 分,分数越高,代表生活质量越好。

1.4 统计学分析

整理所有数据录入 SPSS 17.0 软件,计量资料以($\bar{x} \pm s$)表示,采用独立样本 t 检验,以 $P<0.05$ 为差异具有统计学意义。

2 结果

2.1 两组治疗前后疼痛程度、肩关节肿胀程度的比较

治疗前,B 组的 NRS 评分、肩关节肿胀程度与 A 组相比差异无统计学意义($P>0.05$)。与治疗前相比,两组患者治疗后上述指标均明显降低,且 B 组显著低于 A 组($P<0.05$)。具体见表 2。

2.2 两组治疗前后肩关节活动度的比较

治疗前,B 组的各个范围 ROM 与 A 组相比差异无统计学意义 ($P>0.05$)。与治疗前相比,两组患者治疗后的各个范围 ROM 均明显增加,且 B 组显著高于 A 组($P<0.05$)。具体见表 3。

2.3 两组治疗前后运动功能和神经功能的比较

治疗前,B 组的上肢 FMA、CNFDs 评分与 A 组相比差异无统计学意义($P>0.05$)。与治疗前相比,两组患者治疗后的上肢 FMA 评分均明显升高,CNFDs 评分均明显降低,且 B 组上肢 FMA 评分显著高于 A 组,CNFDs 评分均明显低于 A 组,差异具有统计学意义($P<0.05$)。具体见表 4。

表 2 两组治疗前后 NRS 评分、肩关节肿胀程度对比($\bar{x} \pm s$)Table 2 Comparison of the NRS score and swelling degree of the shoulder joint between two groups before and after treatment($\bar{x} \pm s$)

Groups	NRS score swelling		Degree of the shoulder joint(cm^3)	
	Before treatment	After treatment	Before treatment	After treatment
Group A(n1=41)	7.05 $\pm$ 1.49	3.21 $\pm$ 1.18**	6.34 $\pm$ 2.03	5.63 $\pm$ 1.34**
Group B(n2=41)	7.04 $\pm$ 1.64	1.52 $\pm$ 0.97*	6.25 $\pm$ 1.78	2.46 $\pm$ 1.55*

Note: compared with before treatment in the same group, * $P < 0.05$; compared with after treatment in group B, ** $P < 0.05$.

表 3 两组治疗前后肩关节活动度(ROM)对比($^{\circ}$, $\bar{x} \pm s$)Table 3 Comparison of the ROM of the shoulder joint between two groups before and after treatment($^{\circ}$, $\bar{x} \pm s$)

Groups		Abduction			Adduction			External rotation			Internal rotation			Flexion			Extension		
		Before treatment			After treatment			Before treatment			After treatment			Before treatment			After treatment		
Group A(n1=41)	Before treatment	37.5 $\pm$	4.5		17.8 $\pm$	1.9		14.5 $\pm$	3.8		47.5 $\pm$	6.4		29.6 $\pm$	5.5		12.7 $\pm$	6.7	
	After treatment	53.8 $\pm$	6.1**		22.1 $\pm$	3.5**		23.7 $\pm$	4.1**		52.3 $\pm$	5.8**		57.4 $\pm$	8.2**		17.6 $\pm$	5.9**	
Group B(n2=41)	Before treatment	38.1 $\pm$	5.7		18.2 $\pm$	2.4		14.1 $\pm$	6.2		47.2 $\pm$	5.6		28.9 $\pm$	4.9		12.8 $\pm$	5.4	
	After treatment	161.5 $\pm$	8.6*		51.3 $\pm$	4.1*		48.7 $\pm$	5.3*		105.4 $\pm$	7.7*		151.2 $\pm$	7.6*		37.9 $\pm$	6.5*	

Note: compared with before treatment in the same group, * $P < 0.05$; compared with after treatment in group B, ** $P < 0.05$.

表 4 两组治疗前后上肢 FMA、CNFDS 评分对比($\bar{x} \pm s$)Table 4 Comparison of the upper limb FMA and CNFDS between two groups before and after treatment($\bar{x} \pm s$)

Groups	Upper limb FMA score		CNFDS	
	Before treatment	After treatment	Before treatment	After treatment
Group A(n1=41)	34.41 $\pm$ 5.84	41.46 $\pm$ 9.45**	18.62 $\pm$ 2.94	15.34 $\pm$ 2.35**
Group B(n2=41)	35.22 $\pm$ 4.56	68.95 $\pm$ 8.66*	17.95 $\pm$ 3.52	10.57 $\pm$ 2.84*

Note: compared with before treatment in the same group, * $P < 0.05$; compared with after treatment in group B, ** $P < 0.05$.

2.4 两组治疗前后日常生活活动能力和生活质量的比较

治疗前, 观察组的 MBI、WHOQOL 评分与对照组相比差异无统计学意义($P > 0.05$)。与治疗前相比, 两组患者治疗后的

上述指标均明显提高, 且 B 组显著高于 A 组($P < 0.05$)。具体见表 5。

表 5 两组治疗前后的 MBI、WHOQOL 评分对比($\bar{x} \pm s$)Table 5 Comparison of MBI and WHOQOL between two groups before and after treatment($\bar{x} \pm s$)

Groups	MBI		WHOQOL	
	Before treatment	After treatment	Before treatment	After treatment
Group A(n1=41)	43.65 $\pm$ 10.13	52.45 $\pm$ 6.84**	59.83 $\pm$ 12.55	71.24 $\pm$ 11.35**
Group B(n2=41)	42.78 $\pm$ 9.89	73.27 $\pm$ 5.76*	60.14 $\pm$ 10.86	86.76 $\pm$ 10.42*

Note: compared with before treatment in the same group, * $P < 0.05$; compared with after treatment in group B, ** $P < 0.05$.

3 讨论

肩手综合征(SHS)又称反射性交感神经神经性营养不良, 由于脑循环障碍所支配患者的神经功能障碍, 交感神经功能损害, 血管运动性改变, 导致患肢营养功能障碍^[7,8]。脑梗死后肩手综合征常在脑卒中后 3 个月内发生, 受累关节为肩、腕、指关节, 严重者发生手及手指畸形, 甚至功能完全丧失。目前, SHS 的病因及发病机制尚不明确, 主要可能因为脑卒中后末梢神经血管障碍, 即中枢神经系统损伤直接导致中枢神经致敏, 而进一步导致血管功能障碍^[9]。SHS 康复治疗目的主要在于消除水肿、减轻疼痛及改善关节伸直。

脑梗死后 SHS 属于中医里 "痹症" 范畴, 病因复杂, 尚无特效治疗方法, 并且单一治疗方法一般不能获得良好疗效^[10]。中医药治疗在肩手综合征的治疗中表现出了一定程度的优势

^[11,12]。针刺通过激发患肢经气从而促进经络气血运行, 对于软瘫期可兴奋周围神经, 恢复患肢肌力, 对于痉挛期则抑制上肢屈肌痉挛, 在进行屈伸肘动作时使共同运动转化为分离运动, 促使建立正常运动模式^[13]。选择风池、肩髃等穴位, 主要在于改善血液循环和大脑皮质电活动, 修复脑细胞, 消除脑缺血区水肿, 使脑组织功能逐渐恢复^[14]。丹参川芎嗪主要由丹参素和川芎嗪组成。川芎嗪是一种由中药川芎中分离出的生物碱, 可以起到减轻神经元和微血管内皮损伤的作用, 改善脑循环, 促进脑复苏^[15]。丹参主要具有祛瘀止痛、活血通经之效, 现代药理学表明其也能起到抗缺氧缺血性脑损伤的作用^[16]。选用丹参川芎嗪进行穴位注射, 选取肩前、肩贞、肩髃、肩髃等穴位, 兼具药物治疗和穴位治疗之效, 可活血通络止痛, 消除肿胀, 缓解肌肉痉挛, 改善局部血液循环^[17-19]。此外, 按照正确的运动模式进行每日规范定量康复训练, 以充分刺激运动神经, 促进神经系统功能重

组^[20]。本研究结果显示患者治疗后的 NRS 评分、肩关节肿胀程度均明显降低,说明该治疗方案可有效缓解患者疼痛,减轻肩关节肿胀;患者前屈、后伸、外旋、内旋、外展、内收的肩关节活动度均明显增加,说明该治疗方案有助于提高患者的关节活动度;患者的上肢 FMA 评分均明显升高,CNFDS 评分均明显降低,说明该治疗方案能够改善患者的上肢运动功能,降低神经功能缺损程度;MBI、WHOQOL 评分均明显提高,说明该治疗方案促进患者的日常生活活动能力恢复,明显提高生活质量。

综上所述,康复训练、针灸联合丹参川芎嗪穴位注射治疗脑梗死后肩手综合征疗效显著,可有效改善患者疼痛、提高患者的关节活动度、改善患者的上肢运动功能和生活质量。

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