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## 贺氏火针结合毫针对风寒痹阻型颈型颈椎病患者颈部疼痛症状及局部皮肤温度的影响\*

王丽娜 梁瑞丽<sup>△</sup> 吴立雨 张肖 杨玉蛟

(北京中医医院怀柔医院针灸科 北京 101400)

**摘要 目的:**探讨贺氏火针结合毫针对风寒痹阻型颈型颈椎病患者颈部疼痛症状及局部皮肤温度的影响。**方法:**自2020年1月至2022年11月于我院门诊招募的风寒痹阻型颈型颈椎病患者64例,按随机数字表法分为观察组和对照组各32例。对照组应用单纯毫针治疗,观察组应用贺氏火针点刺配合毫针治疗,两组均治疗4周。分别于治疗前、治疗1、2、3、4周观察两组疼痛视觉模拟评分(VAS)、压痛阈及局部皮肤温度变化。**结果:**治疗后两组各时间点VAS评分均较治疗前相比降低( $P<0.05$ ),治疗4周观察组VAS评分较对照组降低( $P<0.05$ )。治疗后两组各时间点压痛阈值均较治疗前相比升高( $P<0.05$ );治疗1周观察组压痛阈值较对照组升高( $P<0.05$ )。治疗后两组各时间点局部皮肤温度值较治疗前升高( $P<0.05$ ),治疗1、2、3、4周观察组局部皮肤温度值较对照组升高( $P<0.05$ )。**结论:**贺氏火针结合毫针治疗风寒痹阻型颈型颈椎病可明显缓解颈部疼痛等症状,改善颈局部皮肤温度,起效时间及临床疗效优于单纯毫针疗法,值得临床推广应用。

**关键词:**贺氏火针;毫针;颈型颈椎病;风寒痹阻型;视觉模拟评分;压痛阈;皮肤温度

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## Effect of He's Fire Acupuncture Combined with Filiform Acupuncture on Neck Pain Symptoms and Local Skin Temperature in Patients with Neck Type Cervical Spondylosis of Wind Cold Obstruction Type\*

WANG Li-na, LIANG Rui-li<sup>△</sup>, WU Li-yu, ZHANG Xiao, YANG Yu-jiao

(Department of Acupuncture and Moxibustion, Huairou Hospital of Beijing Traditional Chinese Medicine Hospital, Beijing, 101400, China)

**ABSTRACT Objective:** To investigate the effect of He's fire acupuncture combined with filiform acupuncture on neck pain symptoms and local skin temperature in patients with neck type cervical spondylosis of wind cold obstruction type. **Methods:** From January 2020 to November 2022, 64 patients with neck type cervical spondylosis of wind cold obstruction type were recruited from the outpatient department of our hospital. They were divided into observation group and control group according to the random number table method, 32 cases in each group. The control group was treated with simple filiform temperature, and the observation group was treated with He's fire temperature combined with filiform temperature, both groups were treated for 4 weeks. The changes of pain visual analogue scale (VAS), tenderness threshold and local skin temperature were observed before treatment and 1, 2, 3 and 4 weeks after treatment. **Results:** After treatment, the VAS scores of the two groups at each time point were lower than those before treatment ( $P<0.05$ ), and after 4 weeks of treatment, the VAS score of the observation group was lower than that of the control group ( $P<0.05$ ). After treatment, the tenderness threshold of the two groups at each time point was higher than that before treatment ( $P<0.05$ ), and after 1 week of treatment, the tenderness threshold of the observation group was higher than that of the control group ( $P<0.05$ ). After treatment, the local skin temperature of the two groups at each time point was higher than that before treatment ( $P<0.05$ ), and the local skin temperature of the observation group was higher than that of the control group at 1, 2, 3 and 4 weeks after treatment ( $P<0.05$ ). **Conclusion:** He's fire acupuncture combined with filiform acupuncture in the treatment of neck type cervical spondylosis of wind cold obstruction type can significantly relieve the symptoms of neck pain and improve the local skin temperature of the neck, the onset time and clinical efficacy are better than those of simple filiform needle therapy, which is worthy of clinical application.

**Key words:** He's fire acupuncture; Filiform acupuncture; Neck type cervical spondylosis; Wind cold obstruction type; Visual analogue scale; Tenderness threshold; Skin temperature

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作者简介:王丽娜(1984-),女,硕士,副主任医师,研究方向:针灸,E-mail: 18513211035@163.com

△ 通讯作者:梁瑞丽(1982-),女,硕士,副主任医师,研究方向:针灸,E-mail: lfj2529@163.com

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## 前言

颈型颈椎病是颈椎病早期的一种类型,近来随着人们生活工作方式的改变,颈型颈椎病发病率逐渐上升,并明显呈现年轻化趋势<sup>[1,2]</sup>。如果不及时治疗,颈型可发展为其他更严重类型颈椎病,故对此型患者的干预对防治颈椎病具有极其重要的意义<sup>[3,4]</sup>。针灸作为治疗颈椎病常用的中医传统疗法,在消除颈痛、颈部僵硬等症状方面已获得诸多认可<sup>[5,6]</sup>;另外,一些研究显示火针疗法在颈椎病治疗上具有更好效果,可明显缓解患者颈痛程度,改善临床症状,提高颈椎功能<sup>[7,8]</sup>。本研究采用贺氏火针结合毫针治疗风寒痹阻型颈型颈椎病患者并探讨其对颈部疼痛症状及局部皮肤温度的影响,以期对风寒痹阻型颈型颈椎病患者提供理想治疗方案,报道如下。

## 1 资料与方法

表 1 两组一般资料比较(n/n,  $\bar{x} \pm s$ )

Table 1 Comparison of two groups of general information(n/n,  $\bar{x} \pm s$ )

Groups	n	Gender( Male/Female )	Age( years )	Course of disease (years)
Control group	32	17/15	39.25 $\pm$ 11.48	8.18 $\pm$ 3.80
Observation group	32	16/16	40.13 $\pm$ 12.52	7.80 $\pm$ 3.36
$\chi^2/t$		0.063	0.293	0.424
P		0.802	0.770	0.673

### 1.2 治疗方法

对照组应用毫针治疗,取穴:风池(双)、大椎、大杼(双)、肩井(双)、列缺(双)、绝骨(双)。腧穴根据国标定位。操作:治疗局部常规消毒后,采用一次性无菌针灸针(中研太和牌 0.30 mm $\times$  40 mm),按照针刺治疗学<sup>[9]</sup>针刺要求进行操作。每次留针 25 分钟。观察组在与对照组相同毫针治疗基础上,配合应用火针治疗。火针治疗取局部阿是穴,具体要求为:颈局部压痛处或肌肉僵硬不适处。操作方法:局部常规消毒后,采用贺氏火针(型号 0.3 mm $\times$  40 mm),用 75%酒精棉球火焰外焰将火针针尖 5-7 mm 烧红,用烧红的针体迅速在颈部阿是穴处施以多针散刺,刺入深度约 3 mm,散刺 5-8 针,不留针,针刺后用消毒干棉球按压针孔 3-5 秒钟。操作完毕,将火针针尖 7-10 mm 烧红,消毒以备<sup>[8]</sup>。两组均每周治疗 3 次,隔日进行 1 次,共治疗 4 周。

### 1.3 观察指标

(1)疼痛视觉模拟评分(VAS):采用 10 cm 的游动标尺,标有 10 个刻度,两端分别为 0 和 10,0 表示无痛,10 表示无法承受的剧烈疼痛,受试者移动标尺标出自己的疼痛程度。评分越高,表示疼痛越剧烈。(2)颈部压痛阈:应用压痛测试仪(M-tone 型)进行测量。评价者先标记压痛点,再将压痛测试仪探头轻置于压痛点上,缓慢逐渐增加向下按压力度,受试者手持压痛仪定数值按键,当受试者感受到压痛点疼痛时,立即按下按键,评价者读取电子屏显示压力值。受试者每个压痛点测试 3 次,将 3 次测量平均值作为此压痛点的压痛阈值。在受试者 3-5 个压痛点中取最低压痛阈值,作为本次时间点的受试者的压痛阈值。压痛阈越低代表其疼痛越严重。(3)局部皮肤温度变化:应用医用远红外热成像仪(型号:T-1000 SMART)采集受试者颈

### 1.1 一般资料

自 2020 年 1 月至 2022 年 11 月于我院门诊招募的风寒痹阻型颈型颈椎病患者 64 例,诊断标准:西医诊断标准:参照《颈椎病诊治与康复指南》<sup>[9]</sup>拟定。证候诊断标准参照《中医病证诊断疗效标准》<sup>[10]</sup>关于颈痹诊断及风寒痹阻型的诊断标准拟定。纳入标准:(1)符合以上的中西医诊断标准;(2)年龄在 15~65 岁;(3)签署试验知情同意书。排除标准:(1)合并患有其它类型颈椎病具有手术指征者;(2)患有严重的心、脑血管及血液系统等躯体器质性疾病者;(3)患有精神类疾病患者;(4)怀孕者;(5)近 2 周进行过本病相关治疗,可能影响试验结果判定者。按随机数字表法分为观察组和对照组各 32 例。两组患者性别、年龄、病程比较无明显差别( $P > 0.05$ ),具有可比性,见表 1。本试验通过我院医学伦理委员会审核批准。

部红外热像,进行数据分析。采集时要求,室内温度 22~24 $^{\circ}$ C,相对湿度 40%~60%,室内空气缓冲流动,无阳光直接照射。受试者在室内静候 10 分钟,采集焦距为 1.5 m,采集受试者暴露皮肤后的头部至肩胛骨下角红外热像图形,计算测量局部平均温度。所有观察指标于治疗前、治疗 1、2、3、4 周由第三方评定人员进行评价,分组方案对评价人员采用盲法,其不参与入组、治疗及统计工作。

### 1.4 统计学处理

使用 EXCEL2016 进行数据汇总,采用 SPSS19.0 进行分析,计量资料符合正态分布的采用均数 $\pm$ 标准差( $\bar{x} \pm s$ )描述,两组间的比较为成组 t 检验或校正 t 检验。重复观测资料行重复测量方差分析+两两组间比较 LSD-t 检验+两两时间比较差值 t 检验;计数资料以例数及率描述,两组比较为卡方检验或校正卡方检验。重复测量分析及分割检验的多次比较按 Bonferroni 校正法进行检验水准调整。均检验水准 $\alpha=0.05$ ,为双侧检验, $P < 0.05$ 为差异具有统计学意义。

## 2 结果

### 2.1 两组不同时间点 VAS 评分比较

治疗前两组患者 VAS 评分无明显差别( $P > 0.05$ );治疗后两组各时间点 VAS 评分均较治疗前相比降低( $P < 0.05$ ),治疗 4 周观察组 VAS 评分较对照组降低( $P < 0.05$ ),见表 2。

### 2.2 两组不同时间点压痛阈值比较

治疗前两组患者压痛阈值无明显差别( $P > 0.05$ );治疗后两组各时间点压痛阈值均较治疗前相比升高( $P < 0.05$ );治疗 1 周观察组压痛阈值较对照组升高( $P < 0.05$ ),见表 3。

表 2 两组不同时间点 VAS 评分比较( $\bar{x} \pm s$ )

Table 2 Comparison of VAS score at different time points between the two groups( $\bar{x} \pm s$ )

Groups	Time points	VAS score
Control group(n=32)	Before treatment	7.56± 1.93
	1 week	4.76± 1.39 <sup>†</sup>
	2 week	4.02± 0.95 <sup>†</sup>
	3 week	2.62± 1.21 <sup>†</sup>
	4 week	3.12± 1.12 <sup>†</sup>
Observation group(n=32)	Before treatment	7.34± 1.26
	1 week	4.34± 1.47 <sup>†</sup>
	2 week	3.88± 1.87 <sup>†</sup>
	3 week	2.53± 0.97 <sup>†</sup>
	4 week	2.33± 1.08 <sup>†*</sup>
Overall comparison	HF correction coefficient	0.9937
-	Between group F, P	4.000, 0.050
-	Intra group F, P	140.467, 0.000
-	Interaction F, P	0.734, 0.532

Note: Compared with before treatment, <sup>†</sup>P<0.05; Compared with control group at the same time point, <sup>\*</sup>P<0.05.

表 3 两组不同时间点压痛阈值比较( $\bar{x} \pm s$ )

Table 3 Comparison of tenderness threshold value at different time points between the two groups( $\bar{x} \pm s$ )

Groups	Time points	Tenderness threshold value
Control group(n=32)	Before treatment	3.21± 0.89
	1 week	4.20± 0.88 <sup>†</sup>
	2 week	4.96± 1.76 <sup>†</sup>
	3 week	5.44± 0.95 <sup>†</sup>
	4 week	6.36± 1.55 <sup>†</sup>
Observation group(n=32)	Before treatment	2.91± 0.92
	1 week	5.73± 0.95 <sup>†*</sup>
	2 week	5.43± 1.29 <sup>†</sup>
	3 week	5.81± 1.67 <sup>†</sup>
	4 week	6.31± 0.96 <sup>†</sup>
Overall comparison	HF correction coefficient	0.9352
-	Between group F, P	5.999, 0.017
-	Intra group F, P	70.315, 0.000
-	Interaction F, P	6.298, 0.000

Note: Compared with before treatment, <sup>†</sup>P<0.05; Compared with control group at the same time point, <sup>\*</sup>P<0.05.

### 2.3 两组不同时间点皮肤温度值比较

治疗前两组患者局部皮肤温度值无明显差别 ( $P>0.05$ ); 治疗后两组组各时间点局部皮肤温度值较治疗前升高 ( $P<0.05$ ), 治疗 1、2、3、4 周观察组局部皮肤温度值较对照组升高 ( $P<0.05$ ), 见表 4。

### 3 讨论

颈型颈椎病以枕颈部疼痛、颈肌僵硬、活动受限, 且有相应

压痛点为主要症状<sup>[2]</sup>, 属中医 " 颈痹 " 范围, 多因正气不足、筋脉失养, 外感风寒而发, 临床观察以风寒痹阻型较为多见<sup>[13,14]</sup>。本试验以风寒痹阻型颈痹患者为研究对象, 应用贺氏火针配合毫针进行治疗。其中火针疗法是采用专用火针针具在火焰上烧红后刺入人体穴位和部位的一种传统治疗方法<sup>[15-18]</sup>。全国名老中医、国医大师贺普仁教授为提高针灸治疗效果, 对古籍中记载的火针疗法进行研究挖掘, 制作火针针具, 进行不断临床实践基础上, 形成极具中医特色的北京贺氏火针流派<sup>[19,20]</sup>。有研究发

表 4 两组不同时间点局部皮肤温度值比较( $\bar{x} \pm s$ )Table 4 Comparison of local skin temperature value at different time points between the two groups( $\bar{x} \pm s$ )

Groups	Time points	Local skin temperature value
Control group(n=32)	Before treatment	30.01± 0.81
	1 week	31.15± 0.80 <sup>t</sup>
	2 week	32.78± 0.87 <sup>t</sup>
	3 week	32.52± 0.92 <sup>t</sup>
	4 week	33.01± 0.98 <sup>t</sup>
Observation group(n=32)	Before treatment	30.35± 0.72
	1 week	32.46± 0.99 <sup>at</sup>
	2 week	34.07± 0.71 <sup>at</sup>
	3 week	34.32± 1.01 <sup>at</sup>
	4 week	33.99± 0.93 <sup>at</sup>
Overall comparison	HF correction coefficient	1.0305
-	Between group F, P	142.779, 0.000
-	Intra group F, P	161.710, 0.000
-	Interaction F, P	3.360, 0.011

Note: Compared with before treatment, <sup>t</sup>*P*<0.05; Compared with control group at the same time point, <sup>a</sup>*P*<0.05.

现贺氏火针疗法治疗颈椎病疗效明显<sup>[21]</sup>,但在临床研究中仍存在一些问题,如疗效标准大都仅以治疗前后对比,缺乏治疗期间不同时间节点动态数据观察,且多数研究仅评价自觉症状改善情况,缺乏客观指标测量,使临床疗效的可信程度降低,影响技术的临床应用推广。本试验研究采用 VAS 评分评价患者疼痛程度,采用压痛仪测量颈部压痛阈值变化,红外热成像仪测量颈部皮肤温度值,提供相对客观的数据评价疗效情况,且试验治疗期间于不同时间点多次进行观察,以动态描述患者各项指标变化情况。

本研究结果显示,贺氏火针结合毫针治疗风寒痹阻型颈型颈椎病患者可明显缓解颈部疼痛等症状,改善颈局部皮肤温度,整体疗效优于单纯毫针疗法,提示贺氏火针结合毫针治疗风寒痹阻型颈型颈椎病患者优势明显,疗效确切。分析原因为本试验采用的贺氏火针疗法为贺普仁教授所创贺氏三通法之温通法;火针可针刺到腧穴且具有温热刺激,故在疗效方面,即可温通经脉,扶助正气以祛邪,又能够鼓动人体阳气,行气活血通络<sup>[22]</sup>。在选穴上,采用火针作用于颈部疼痛阿是穴,乃"以痛为腧"之意<sup>[23]</sup>。红外热成像观察到火针直接针刺病变局部或穴位后,局部皮温升高,微循环血流加快,提示局部新陈代谢得到改善<sup>[24]</sup>。毫针针刺所选经络以督脉、太阳膀胱经、少阳胆经腧穴为主,选穴注重局远穴相配。根据"腧穴所在,主治所及"原则,针刺局部腧穴风池、大杼、大椎、肩井,且上述诸穴均为阳经腧穴,具有激发阳气、补益气血、舒筋通络作用<sup>[25]</sup>。配合远端取穴,列缺为八脉交会穴,通于任脉,是治疗头项疾患要穴,绝骨为八会穴之"髓会",亦为足三阳之大络,可改善足太阳膀胱经气血。现代研究<sup>[26,27]</sup>也提示针刺列缺、绝骨可改善血管痉挛,缓解颈项强痛。

综上所述,贺氏火针结合毫针治疗风寒痹阻型颈型颈椎病可明显缓解颈部疼痛等症状,改善颈局部皮肤温度,起效时间

及临床疗效优于单纯毫针疗法,值得临床推广应用。但本试验观察患者相对较少,且未涉及机理研究,需在后续研究中改进与完善。

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