

椎管减压联合中药治疗脊髓型颈椎病的临床研究

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【摘要】 目的: 比较椎管减压联合中药与单纯椎管减压治疗脊髓型颈椎病的临床疗效。方法: 2012 年 6 月至 2015 年 6 月, 收治脊髓型颈椎病患者 73 例, 其中男 42 例, 女 31 例, 年龄 29~73 岁, 平均 50.9 岁。根据患者意愿分为手术组和手术联合中药组, 手术根据患者病情采用前路间盘摘除或椎体次全切钢板螺钉内固定术或后路单开门减压侧块螺钉内固定术, 其中单纯手术组 34 例, 手术联合中药组 39 例。比较两组患者术前和术后 1 周、1 个月及末次随访的神经功能, 通过日本骨科协会(JOA)17 分法对所有患者神经功能进行评分, 计算神经功能改善率, 同时根据颈椎功能障碍指数量表(NDI)及根据 JOA 评分与《颈椎病临床评价量表》制定的督脉瘀阻证候积分对患者神经功能改善情况进行评定, 术后通过 X 线片、CT、MRI 观察内固定及脊髓减压情况。结果: 所有患者手术顺利, 术中均无硬膜、脊髓、神经根损伤, 术后 1 例患者出现伤口感染, 经抗感染治疗后得到控制, 1 例患者术后出现血肿, 并伴有脊髓压迫, 出现不全瘫表现, 及时行二次手术清除血肿, 患者未留下明显后遗症。两组患者术后均获得随访, 随访 12~24 个月, 单纯手术组平均(14.6±0.8)个月, 手术联合中药组平均(13.5±0.7)个月, 随访时间两组差异无统计学意义($P>0.05$)。单纯手术组术前 JOA 评分、颈椎功能障碍指数(NDI)及督脉瘀阻证候积分分别为 8.31±3.15、29.91±4.52、6.58±1.31, 术后 1 周分别为 10.21±2.58、18.67±4.31、8.24±1.18, 术后 1 个月分别为 11.38±2.85、16.11±3.18、8.91±2.11, 末次随访分别为 12.21±3.12、14.61±3.28、9.12±1.56, 手术联合中药组术前 JOA 评分、颈椎功能障碍指数(NDI)及督脉瘀阻证候积分分别为 8.29±3.47、30.83±4.14、6.38±1.81, 术后 1 周分别为 10.48±2.39、17.59±5.14、8.33±1.57, 术后 1 个月分别为 12.14±3.12、13.14±3.21、9.55±2.49, 末次随访分别为 13.85±3.34、12.11±2.51、10.33±1.95, 两组患者术后 JOA 评分、颈椎功能障碍指数(NDI)及督脉瘀阻证候积分较术前明显提高($P<0.05$); 术后 1 周两组间差异无统计学意义($P>0.05$), 术后 1 个月及末次随访时, 手术联合中药组较单纯手术组脊髓功能改善更为明显($P<0.05$), JOA 改善率单纯手术组为(67.59±10.78)%, 手术联合中药组为(66.88±12.15)%, 两组差异无统计学意义($P>0.05$)。两组患者术后均行 X 线、CT、MRI 检查, 未出现内固定松动断裂。结论: 通过椎管减压治疗脊髓型颈椎病, 可以扩大椎管, 解除神经压迫, 以疏通督脉, 调节气血, 振奋阳气, 配合中药活血祛瘀, 温阳通络、补益肝肾能够达到较单纯手术治疗更佳的治疗效果。

【关键词】 脊髓型颈椎病; 督脉; 补阳还五汤

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Clinical study on spinal cord decompression combined with traditional Chinese medicine for the treatment of cervical spondylotic myelopathy YANG Feng, TAN Ming-sheng, YI Ping, TANG Xiang-sheng, HAO Qing-ying, and QI Ying-na. Department of Spinal Surgery, China-Japan Friendship Hospital, Beijing 100029, China

ABSTRACT Objective: To compare the clinical effect between spinal cord decompression combined with traditional Chinese medicine and simple spinal cord decompression for cervical spondylotic myelopathy. **Methods:** From June 2012 to June 2015, 73 patients with cervical spondylotic myelopathy were treated, including 42 males and 31 females, aged from 29 to 73 years old with a mean of 50.9 years old. The patients were divided into the simple operation group (34 cases) and the operation combined with traditional Chinese medicine group (39 cases) according to the idea of themselves. The anterior discectomy or subtotal corpectomy with internal fixation or posterior simple open-door decompression with lateral mass screw fixation were performed in the patients. Among them, 39 cases were treated with traditional Chinese medicine after surgery. The Japanese orthopedic association (JOA) score of spinal cord function, the improvement rate of neural function, the neck dysfunction index (NDI) score and the governor vessel stasis syndrome score were compared between two groups preoperative and postoperative 1 week, 1 month and the final follow-up respectively. The internal fixation and the condition of spinal cord decompression were observed by CT, MRI and X-rays before and after operation. **Results:** All the operations were successful, no injuries such as

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dura mater, spinal cord and nerve root were found. All the wounds were healed without infection except one patient had a superficial infection. It was solved after intermittent debridement and anti-infective therapy. Hematoma occurred in 1 case, complicated with spinal cord compression, caused incomplete paralysis, and promptly performed the re-operation to remove the hematoma without any obvious sequelae. All the patients were followed up from 12 to 24 months, (14.6±0.8) months for simple operation group and (13.5±0.7) months for operation combined with traditional Chinese medicine group, and there was no significant difference ($P>0.05$). The scores of JOA, NDI and the governor's vessel stasis syndrome in simple operation group were 8.31±3.15, 29.91±4.52, 6.58±1.31 before operation, and 10.21±2.58, 18.67±4.31, 8.24±1.18 one week after operation, and 11.38±2.85, 16.11±3.18, 8.91±2.11 one month after operation, and 12.21±3.12, 14.61±3.28, 9.12±1.56 at final follow-up, respectively; and in operation combined with traditional Chinese medicine group were 8.29±3.47, 30.83±4.14, 6.38±1.81 before operation, and 10.48±2.39, 17.59±5.14, 8.33±1.57 one week after operation, and 12.14±3.12, 13.14±3.21, 9.55±2.49 one month after operation, and 13.85±3.34, 12.11±2.51, 10.33±1.95 at final follow-up, respectively. Postoperative JOA, NDI, and the governor vessel stasis syndrome score of two groups were significantly higher than preoperative ($P<0.05$). There was no significant difference in JOA, NDI, and the governor vessel stasis syndrome score between two groups one week after operation ($P>0.05$). The above items in operation combined with traditional Chinese medicine group was better than that of simple operation group one month and final follow-up after operation ($P<0.05$). The improvement rate of neural function in simple operation group was (67.59±10.78)%, and in operation combined traditional Chinese medicine group was (66.88±12.15)%, there was no significant difference between two groups ($P>0.05$). There were no complications such as internal fixation failure or re-dislocation of atlas by postoperative CT, MRI and X-rays examination. **Conclusion:** Spinal cord decompression for the treatment of cervical spondylotic myelopathy can extend the spinal canal, relieve the compression of nerve, achieve the deopilation of governor vessel, the regulation of qi and blood, the restore of Yangqi, combined with traditional Chinese medicine of activating blood removing stasis, warming yang and activating meridians, reinforcing liver benefiting kidney, which may obtain better clinical effect.

KEYWORDS Cervical spondylotic myelopathy; Governor vessel; Buyanghuanwu decoction

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脊髓型颈椎病是颈椎病中最为严重的一种类型,是由于颈椎间盘突出、椎体后缘骨质增生、钩椎关节增生、后纵韧带骨化、黄韧带肥厚或钙化,导致脊髓受压或脊髓缺血,继而出现脊髓的功能障碍。脊髓损伤可表现为颈部疼痛、活动受限,出现全身肌肉紧张、手握物不稳或无力、行走无力、容易跌倒、大小便无力、四肢肌肉萎缩,严重者可导致全身瘫痪,甚至危及生命。中医认为本病的病机为督脉受损,从而导致了督脉瘀阻,致使气血、经络、脏腑之间的功能紊乱,出现了一系列症状,治疗此类疾病需“从督论治”^[1]。自 2012 年 6 月至 2015 年 6 月,本研究通过分析对比单纯手术与手术联合中药治疗脊髓型颈椎病,以探讨手术联合中药“从督论治”治疗脊髓型颈椎病的临床疗效。

1 资料与方法

1.1 诊断标准及中医辨证

诊断标准^[2]:具有典型髓性症状;影像学明显退变征象或椎管狭窄;排除肌萎缩性脊髓侧索硬化症、脊髓肿瘤、脊髓空洞症、脊髓结核等。脊髓型颈椎病督脉瘀阻证候:颈部疼痛活动受限;行走不稳,四肢麻木无力,肌肉萎缩或肌张力增高;二便不畅或失禁;舌质紫暗或有瘀斑,苔薄黄,脉弦紧或细涩。

1.2 纳入及排除标准

1.2.1 纳入标准 符合上述诊断标准;影像学上伴

有明显的脊髓压迫并伴有明显脊髓症状;同意参与本项研究,签署知情同意书。

1.2.2 排除标准 伴有严重内科疾病无法耐受手术者;伴有肿瘤、感染及外伤者;病历资料不全或随访脱落者。

1.3 一般资料

本组 73 例,男 42 例,女 31 例;年龄 29~73 岁,平均 50.9 岁;病程 2~45 个月,平均 11.2 个月。根据患者意愿分为手术组和手术联合中药组,其中单纯手术组 34 例,男 18 例,女 16 例;年龄 29~70(49.5±4.3)岁;病程 2~42(10.2±3.5)个月;颈椎间盘突出症 22 例,颈椎后纵韧带骨化 8 例,发育性椎管狭窄 4 例;采取前路手术的 12 例,后路手术的 22 例。手术联合中药组 39 例,男 24 例,女 15 例;年龄 31~73(51.2±5.4)岁;病程 3~45(11.8±4.2)个月;颈椎间盘突出症 23 例,颈椎后纵韧带骨化 11 例,发育性椎管狭窄 5 例;采取前路手术的 15 例,后路手术的 24 例。两组患者临床资料经统计学处理,差异无统计学意义,见表 1。

1.4 治疗方法

1.4.1 手术方法 手术根据病情分为前路手术和后路手术,对于短节段颈椎间盘突出、后纵韧带骨化等导致相应脊髓受压者,采取前路手术。患者全麻后,采取仰卧位,与颈前右侧横行切口,切开皮肤皮

下,从颈内脏鞘与血管神经鞘之间进入,到达椎体前缘,放入标记物,C形臂 X 线透视确定病变节段,用刮匙刮除病变节段椎间盘、骨赘,必要时切除部分椎体,彻底解除脊髓压迫,并清除椎体两侧残留部分致压物,取适当长度的人工骨,将咬除的部分碎骨填入其内,植入两椎体之间,前方放置合适长度的钛板,并用自锁螺钉固定。伤口留置引流管,关闭伤口。对于多节段颈椎间盘突出、多节段后纵韧带骨化、颈椎黄韧带肥厚或骨化等所致的脊髓型颈椎病,予以颈椎后路单开门椎管扩大成形术。在全麻下,取俯卧位,头部用 Mayfield 颅骨支架固定,常规消毒铺巾,取颈后正中切口,依次切开皮肤皮下,剥离椎旁肌,显露 C₃-C₇ 两侧椎板,选择症状重的一侧作为开门侧,对侧为门轴侧,在棘突旁开 5~8 mm 处用超声骨刀打开椎板内外层皮质,使其完全断开,门轴侧则打开椎板外层皮板,保留内层皮质,使其作为铰链。将椎板向门轴侧掀开 30°~40°,同时用椎板咬钳或神经剥离器清理黄韧带,于 C₃-C₇ 两侧分别拧入侧块螺钉。截取适当长度的钛棒,稍预弯,连接两侧螺钉,固定锁死,将掀开的椎板用丝线固定在对侧的钛棒上,关闭伤口,并留置引流管。术后颈部制动,3 d 后颈围保护下下地活动,3 个月后去除颈围进行功能锻炼。

1.4.2 分组治疗 (1)常规手术组:术后予以预防感染,脱水消肿,营养神经治疗等常规治疗,同时进行相应的康复锻炼。(2)手术联合中药组:在常规治疗和康复锻炼的基础上予以补阳还五汤加减口服,每日 1 剂,分早晚 2 次服用,连服 7 d 为 1 个疗程,共服用 4 个疗程。补阳还五汤组成:生黄芪 120 g,当

归尾 6 g,赤芍 5 g,地龙 10 g,川芎 5 g,红花 5 g,桃仁 5 g,若伴有脾胃虚弱者,加党参、茯苓、白术各 10 g,补气健脾;肝肾亏虚者加熟地黄、骨碎补、淫羊藿各 10 g,补益肝肾;风寒湿痹者加伸筋草、威灵仙各 15 g,祛风除湿;血瘀络阻明显者,当归、川芎、桃仁、赤芍可加为 15 g,活血祛瘀。

1.5 观察项目与方法

1.5.1 临床症状观察 通过日本骨科协会(JOA) 17 分法^[3]对所有患者手术前后的神经功能进行评分,并计算改善率(RR),RR=[(术后分-术前分)/(17-术前分)]×100%,结果分 4 级,改善率≥75%为优,74%~50%为良,49%~25%为可,改善率<25%为差;同时根据颈椎功能障碍指数量表(NDI)^[5]及 JOA 评分与《颈椎病临床评价量表》^[6]制定的督脉瘀阻证候积分^[7](表 2)对患者神经功能改善情况进行评定。

1.5.2 影像学观察 术后通过 X 线片、CT、MRI 观察内固定及脊髓减压情况。

1.6 统计学处理

采用 SPSS17.0 统计软件进行统计学分析,计量资料用均数±标准差($\bar{x}\pm s$)表示,对各组手术前后数据以配对 *t* 检验进行比较,两组间以独立样本 *t* 检验进行比较;计数资料采用 χ^2 检验。以 *P*<0.05 为差异有统计学意义。

2 结果

所有患者手术顺利,术中无硬膜、脊髓、神经根损伤。术后 1 例患者出现伤口感染,经抗感染治疗后得到控制;1 例患者术后出现血肿,并伴有脊髓压迫,出现不全瘫表现,及时行二次手术清除血肿,患

表 1 两组脊髓型颈椎病患者一般资料比较

Tab.1 Comparison of general data of patients with cervical spondylotic myelopathy between two groups

组别	例数	性别(例)		年龄 ($\bar{x}\pm s$,岁)	病种(例)			手术入路(例)		病程 ($\bar{x}\pm s$,月)
		男	女		颈椎间盘突出	颈椎后纵韧带骨化	发育性椎管狭窄	前路	后路	
单纯手术组	34	18	16	49.5±4.3	22	8	4	12	22	10.2±3.5
手术联合中药组	39	24	15	51.2±5.4	23	11	5	15	24	11.8±4.2
检验值	-	$\chi^2=1.22$		<i>t</i> =-0.89	$\chi^2=0.55$			$\chi^2=1.09$		<i>t</i> =-0.42
<i>P</i> 值	-	0.27		0.38	0.76			0.49		0.58

表 2 督脉瘀阻证候积分评分表

Tab.2 Rating scale of the governor vessel stasis syndrome score

症状	3 分	2 分	1 分	0 分
颈部僵痛	无明显疼痛	仅夜间疼痛,偶然,轻度	经常,轻度或偶重度	持续剧痛
上下肢功能	无明显症状	下肢或(和)上肢轻度麻木不仁和乏力;行走不稳,不能快走,手不灵活,但能用筷子进食	下肢或(和)上肢无力;用拐可在平地行走少许,不能用筷子,但能用勺子进食	下肢或(和)上肢痿废不用,不能使用勺子进食
膀胱功能	正常	小便不畅	小便淋漓不尽	尿储留或失禁
呼吸功能	正常	时作憋闷	喘憋	喘憋难以维持,需吸氧

者未留下明显后遗症。

2.1 临床症状观察

两组患者术后均获得随访,时间 12~24 个月,单纯手术组平均 (14.6±0.8) 个月,手术联合中药组 (13.5±0.7)个月,在随访时间上两组差异无统计学意义 ($P>0.05$)。两组患者术后颈椎功能障碍指数 (NDI)、督脉瘀阻证候积分及 JOA 评分均较术前明显提高 ($P<0.05$); 术后 1 周两组差异无统计学意义 ($P>0.05$),但在术后 1 个月及末次随访时,手术联合中药组较单纯单手术组脊髓功能改善更为明显 ($P<0.05$)。见表 3-5。JOA 评分的改善率单纯手术组为 (67.59±10.78)%,手术联合中药组为 (66.88±12.15)%,两组差异无统计学意义 ($t=0.07, P>0.05$)。

表 3 两组脊髓型颈椎病患者术前术后颈椎 NDI 评分比较 ($\bar{x}\pm s$, 分)

Tab.3 Comparison of pre-and postoperative NDI scores of patients with cervical spondylotic myelopathy between two groups ($\bar{x}\pm s$, score)

组别	术前	术后 1 周	术后 1 个月	末次随访
单纯手术组	29.91±4.52	18.67±4.31	16.11±3.18	14.61±3.28
手术联合中药组	30.83±4.14	17.59±5.14	13.14±3.21	12.11±2.51
<i>t</i> 值	-0.26	0.28	5.13	3.76
<i>P</i> 值	0.41	0.58	0.00	0.00

2.2 影像学观察

两组患者术后均行 X 线片、CT、MRI 检查,未出现内固定松动断裂。典型病例手术前后影像学资料见图 1。

3 讨论

3.1 脊髓型颈椎病的发病机制

脊髓型颈椎病是由于多种因素使颈椎管有效空间减少,导致脊髓受到压迫而出现的一系列以感觉、

表 4 两组脊髓型颈椎病患者督脉瘀阻证候积分 ($\bar{x}\pm s$, 分)

Tab.4 Comparison of the governor vessel stasis syndrome scores of patients with cervical spondylotic myelopathy between two groups ($\bar{x}\pm s$, score)

组别	术前	术后 1 周	术后 1 个月	末次随访
单纯手术组	6.58±1.31	8.24±1.18	8.91±2.11	9.12±1.56
手术联合中药组	6.38±1.81	8.33±1.57	9.55±2.49	10.33±1.95
<i>t</i> 值	0.16	-0.08	2.98	4.68
<i>P</i> 值	0.35	0.49	0.01	0.00

运动、反射等脊髓功能障碍为临床表现的一类疾病,多发生于中老年人,具有较高的致残率,其发病机制主要包括:(1)发育性颈椎管狭窄,椎管空间变小,脊髓受压;(2)颈椎不稳,使椎管内的后纵韧带、黄韧带增生肥厚,压迫脊髓;(3)颈椎退变,椎间盘突出或脱出,椎管内骨质增生,后纵韧带骨化导致脊髓受压。由于脊髓型颈椎病的预后与脊髓压迫程度与压迫时间有关,很少能自行缓解,因而早期诊断,早期治疗至关重要,应积极予以干预^[6]。

3.2 脊髓型颈椎病的中医认识

中医的古籍记载中没有脊髓损伤一说,根据病症脊髓型颈椎病属中医学“痹证”“痿证”“痿证”等范畴。现代中医根据病变部位及督脉的生理功能,认为本病与督脉瘀阻相关,由于督脉瘀阻,经脉不通,导致督脉与其他经络、脏腑、气血之间功能紊乱,从而导致一系列症状。督脉是奇经八脉之一,为阳脉及全身经脉之海,是十二经之纲领及动力。中医认为督脉与大脑和脊髓关系密切,《灵枢·经脉》载:“督脉者……与太阳起于目内眦,上额交巅上,入络脑,还出别下项。”《难经·二十八难》亦云:“督脉者,起于下极之命,并于脊里,上至风府,入属于脑”^[1]。古人认为督脉主要循行于头部、背部,总督全身之阳气、统率周身之阳经,故为“阳脉之海”“诸阳之会”,且与十二

表 5 两组脊髓型颈椎病患者术前术后 JOA 评分比较 ($\bar{x}\pm s$, 分)

Tab.5 Comparisons of pre-and postoperative JOA scores of patients with cervical spondylotic myelopathy between two groups ($\bar{x}\pm s$, score)

项目	单纯手术组				手术联合中药组			
	术前	术后 1 周	术后 1 个月	末次随访	术前	术后 1 周	术后 1 个月	末次随访
上肢运动功能	1.92±0.41	2.21±0.27	2.67±0.49	3.11±0.31	1.87±0.51	2.37±0.38	2.97±0.41	3.52±0.25
下肢运动功能	2.37±0.37	2.84±0.34	3.18±0.42	3.34±0.35	2.28±0.34	2.67±0.47	3.29±0.22	3.67±0.42
感觉功能	3.47±0.29	3.87±0.26	4.08±0.51	4.51±0.49	3.26±0.21	3.79±0.63	4.31±0.48	4.84±0.34
膀胱功能	2.38±0.42	2.47±0.39	2.66±0.28	2.71±0.34	2.31±0.39	2.54±0.29	2.79±0.27	2.81±0.37
总分	8.31±3.15	10.21±2.58	11.38±2.85	12.21±3.12	8.29±3.47	10.48±2.39	12.14±3.12	13.85±3.34

注:两组总分比较,术前: $t=0.01, P=0.50$; 术后 1 周: $t=-0.12, P=0.46$; 术后 1 个月: $t=3.27, P=0.00$; 末次随访: $t=4.13, P=0.00$

Note: Comparison of total score between two groups, preoperative: $t=0.01, P=0.50$; one week after operation: $t=-0.12, P=0.46$; one month after operation: $t=3.27, P=0.00$; at final follow-up: $t=0.91, P=0.37$



图 1 患者,男,61 岁,脊髓型颈椎病,行后路单开门减压侧块螺钉内固定术 **1a**. 术前颈椎侧位 X 线片示颈椎椎体后骨质增生,生理曲度减小 **1b,1c**. 术前 CT 示颈椎间盘突出,后纵韧带骨化,颈椎管狭窄 **1d,1e**. 颈椎术前 MRI 示 C₃-C₆ 椎管狭窄,相应脊髓受压 **1f**. 术后 1 个月颈椎侧位 X 线片示内固定位置良好 **1g,1h**. 术后 1 个月颈椎 CT 显示颈椎管明显扩大,矢状径增加 **1i,1j**. 术后 1 个月 MRI 显示压迫解除

Fig.1 A 61-year-old male patient with cervical spondylosis was treated by posterior single open-door decompression and lateral mass screw fixation **1a**. Preoperative cervical lateral X-ray showed the hyperosteoegeny in the posterior margin of cervical vertebra with physiological curvature decreasing **1b,1c**. Preoperative CT showed the cervical disc herniation, ossification of posterior longitudinal ligament, and cervical spinal stenosis **1d,1e**. Preoperative MRI showed the spinal stenosis at level of C₃-C₆ with compression of spinal cord **1f**. Postoperative cervical lateral X-ray at 1 month showed the location of internal fixation was satisfactory **1g,1h**. Postoperative cervical CT at 1 month showed the cervical spinal canal obvious was expanded of, and the sagittal diameter was increased **1i,1j**. Postoperative MRI at 1 month showed the compression was removed

经脉联系密切,可调节全身之气血,从现代医学的角度看,督脉的解剖部位及走行与脊髓相似,且功能亦类似于脊髓的中枢神经作用。手足三阳经均与督脉交会,而五脏六腑之气皆通过背俞穴与足太阳经相联系,故督脉与脏腑经脉气血的功能活动密切相关^[8]。故脊髓损伤可致督脉经络瘀阻,手足三阳经气血不畅,不能濡养肢体^[9],因而出现肢体麻木无力,无法活动,如伤及足太阳膀胱经或手阳明大肠经,则出现二便功能障碍,督脉受损导致经气不利,气血运行不畅,则瘀血内停,瘀血不去则新血不生,从而进一步损伤督脉,导致督脉与其他经络脏腑之间的功能更加紊乱,这与现代医学中脊髓型颈椎病压迫脊髓,脊髓血供减少,静脉回流受阻,进一步加重脊髓水肿,影响血液循环,导致一系列脊髓症状相类似^[10]。本研究中,两组患者通过手术减压直接解除脊髓压迫,通过患者术前术后 JOA 评分,颈椎功能障碍指数量表(NDI)及督脉瘀阻证候积分分析,患者术后神经功能均得到明显恢复,从中医角度来看督脉疏通,气血通畅,脏腑经脉功能得以恢复,故而症状得以缓解。

3.3 中药在脊髓型颈椎病术后康复中的作用

现代医学中,脊髓型颈椎病在保守治疗无效的情况下选择手术治疗,由于脊髓长期受压,血供减少,导致脊髓变性坏死,因而脊髓压迫解除后,脊髓功能的恢复至关重要。西医通常采用脱水消肿、营养神经治疗,同时辅以功能锻炼,取得了良好的效果。有学者根据脊髓型颈椎病的特点,结合中医的辨证论治,以活血化瘀、温阳通络、补益肝肾作为治疗原则,并根据个人情况在传统方剂的基础上进行加减,方剂多采用补阳还五汤、血府逐瘀汤、桃红四物汤加减等^[11-12],已达到促进脊髓恢复的作用。

本组病例术后均采用补阳还五汤为主方。补阳还五汤常用于治疗正气不足,脉络瘀阻所致疾病^[13],以补气为主,兼以活血通络,方中重用黄芪大补元气,使气旺以促血行,现代药理学研究显示,黄芪所含有的黄芪多糖,可促进体内环磷腺苷浓度的升高,能够抑制血小板聚集^[14],该药配伍当归补血活血,祛瘀而不伤正,而当归中的当归多糖具有改善造血干细胞、提高机体免疫力及保护神经功能的作用^[15]。川芎、赤芍、桃仁、红花助当归活血祛瘀,地龙通经活络,而地龙中多含有的多种生物酶,不仅具有抗凝的作用,还具有抗氧化的作用^[16],诸药合用,使气旺血行,瘀祛络通,诸症渐愈。此方出自《医林改错》,用于治疗半身不遂、语言蹇涩、口角流涎、下肢痿废、小便频数、遗尿不禁等。现代医学研究表明,补阳还五汤能早期控制和减缓炎症反应,改善微循环,减轻脊髓

水肿的程度,抑制过氧化脂质(LPO),减轻自由基的损害,抑制谷氨酸的兴奋性毒性,从而减轻脊髓损伤的继发性损害^[8]。Chen 等^[17]通过采用补阳还五汤治疗脊髓损伤动物,结果显示其髓鞘、神经元细胞结构恢复理想,可以阻止脊髓继发性损伤,促进神经元与损伤神经纤维的修复与再生。现代药理学还验证了补阳还五汤具有促进血管生成、扩张血管、抗凝等改善局部血液循环,减轻神经水肿,保护神经组织,促进神经功能的恢复^[18]。

本研究显示配合中药治疗组术后 JOA 评分、颈椎功能障碍指数(NDI)及督脉瘀阻证候积分较术前症状明显改善,同时对比非中药组脊髓功能改善更为明显,由此说明手术解除脊髓压迫,疏通督脉之后,辅以中药不仅能够改善脊髓神经的血液循环,减少颈部软组织炎性渗出,缓解颈部症状,同时能够促进神经细胞的修复,加速神经功能的恢复。

总之,通过椎管减压治疗脊髓型颈椎病,可以扩大椎管,解除神经压迫,以疏通督脉,调节气血,振奋阳气,配合中药活血祛瘀、温阳通络、补益肝肾能够达到更佳的治疗效果。由于本研究纳入的患者数量较少,有待今后进一步对更多患者进行更长时间的随访和研究。

参考文献

- [1] 何兴伟,黄建华.痿证从督脉论治探讨[J].中国针灸,2008,28(3):231-233.
HE XW, HUANG JH. Study on treatment of flaccidity from the Governor Vessel [J]. Zhongguo Zhen Jiu, 2008, 28 (3): 231-233. Chinese.
- [2] 郝定均.实用颈椎外科学[M].北京:人民卫生出版社,2007:206.
HAO DJ. Practical Cervical Spine Surgery [M]. Beijing: People's Medical Publishing House, 2007: 206. Chinese.
- [3] Yonenobu K, Okada K, Fuji T, et al. Cause of neurologic deterioration following surgical treatment of cervical myelopathy [J]. Spine (Phila Pa 1976), 1986, 11(8): 818-823.
- [4] 徐良丰,周景和,水小龙,等.颈前路手术治疗双节段脊髓型颈椎病的疗效及预后因素分析[J].中国骨伤,2011,24(2):149-153.
XU LF, ZHOU JH, SHUI XL, et al. Analysis of outcome and prognostic factors of anterior approach for two-level cervical spondylotic myelopathy [J]. Zhongguo Gu Shang/China J Orthop Trauma, 2011, 24(2): 149-153. Chinese with abstract in English.
- [5] 谭明生,李显,张恩忠,等.寰枢椎脱位外科治疗与疏通督脉瘀阻相关性研究[J].中国骨伤,2012,25(11):915-919.
TAN MS, LI X, ZHANG EZ, et al. Research on the correlation between surgical treatment for atlantoaxial dislocation and dredging Governor vessel [J]. Zhong guo Gu Shang/China J Orthop Trauma, 2012, 25(11): 915-919. Chinese with abstract in English.
- [6] Vernon HI, Mior S. The Neck Disability Index: a study of reliability and validity [J]. J Manipulative Physiol Ther, 1991, 14(7): 409-415.

[7] 侯树勋. 脊柱外科学[M]. 北京:人民军医出版社,2005:629.
HOU SX. Spine Surgery[M]. Beijing:People's Military Medical Press,2005:629. Chinese.

[8] 胥林波. 督脉与脊髓关系的探析[J]. 中国中西医结合杂志, 2011,20(30):3844-3845.
XU LB. The analysis of relationship between the Governor Vessel and spinal cord[J]. Zhongguo Zhong Xi Yi Jie He Za Zhi,2011,20(30):3844-3845. Chinese.

[9] 陈宇飞,王四旺,罗卓荆,等. 中药治疗脊髓损伤的研究现状[J]. 现代生物医学进展,2010,10:1983-1986.
CHEN YF,WANG SW,LUO ZJ,et al. The current research status of traditional Chinese medicine treatment of spinal cord injury[J]. Xian Dai Sheng Wu Yi Xue Jin Zhan,2010,10:1983-1986. Chinese.

[10] Lee J,Koyanagi I,Hida K,et al. Spinal cord edema:unusual magnetic resonance imaging findings in cervical spondylosis[J]. J Neurosurg,2003,99(1Suppl):8-13.

[11] 刘勇,樊成虎. 中药湿热敷治疗脊髓型颈椎病 120 例临床观察[J]. 中医临床研究,2014,6(2):95-96.
LIU Y,FAN CH. Clinical observation on treating 120 cases of CSM with wet-hot compress[J]. Zhong Yi Lin Chuang Yan Jiu,2014,6(2):95-96. Chinese.

[12] 姜春艳. 辨证分型治疗脊髓型颈椎病 62 例[J]. 实用中医内科杂志,2012,26(12):44-45.
JIANG CY. Treatment of 62 cases of cervical spondylosis with syndrome differentiation[J]. Shi Yong Zhong Yi Nei Ke Za Zhi, 2012, 26(12):44-45. Chinese.

[13] 姜春华. 活血化瘀研究新编[M]. 上海:上海医科大学出版社, 1990:466-533.

JIANG CH. Study on Blood Circulation and Blood Stasis[M]. Shanghai Medical University Press,1990:466-533. Chinese.

[14] 代引海,肖刚,邱春丽,等. 黄芪注射液在胃癌化疗中的应用[J]. 陕西医学杂志,2014,43(2):246-247.
DAI YH,XIAO G,QIU CL,et al. Application of astragalus injection in chemotherapy of gastric cancer[J]. Shan Xi Yi Xue Za Zhi, 2014,43(2):246-247. Chinese.

[15] 李曦,张丽宏,王晓晓,等. 当归化学成分及药理作用研究进展[J]. 中药材,2013,36(6):1023-1028.
LI X,ZHANG LH,WANG XX,et al. Chemical composition and pharmacological research progress of angelica[J]. Zhong Yao Cai, 2013,36(6):1023-1028. Chinese.

[16] 沈忱,陈卫平. 基于贝叶斯网络对《本草纲目》中活血化瘀类中药药效与药理间关系的研究[J]. 南京中医药大学学报,2015, 31(3):231-233.
SHEN C,CHEN WP. Study based on Bayesian Networks of the relationship between clinical effect and pharmacological effect of traditional Chinese medicine on activating blood circulation and removing stasis in compendium of materia medic[J]. Nan Jing Zhong Yi Yao Da Xue Xue Bao,2015,31(3):231-233. Chinese.

[17] Chen A,Wang H,Zhang J,et al. BYHWD rescues axotomized neurons and promotes functional recovery after spinal cord injury in rats[J]. Ethnopharmacol,2008,117(3):451-456.

[18] Liu BY,Song XL,Yi J et al. Buyang huanwu decoction reduces infarct volume and enhances estradiol and estradiol receptor concentration in ovariectomized rats after middle cerebral artery occlusion[J]. Chin J Integrative Med,2014,20(10):782-786.

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