

Rood 技术结合面肌协调性训练治疗重度周围性面瘫疗效观察

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【摘要】 目的 探讨 Rood 技术结合面肌协调性训练治疗重度周围性面瘫的疗效。方法 选取 2017-06—2020-06 在郑州大学第二附属医院就诊的重度周围性面瘫患者 60 例, 治疗组 30 例, 对照组 30 例。对照组采用药物治疗、针灸、理疗等, 治疗组采用 Rood 技术加面肌协调性训练, 同时采取与对照组相同的治疗手段。总疗程 4~6 周, 治疗结束后比较 2 组 House-Brackmann (H-B) 面神经功能分级、Portmann 评分。结果 治疗后 H-B 分级: 治疗组 I 级 8 例 (26.7%), II 级 16 例 (53.3%), 对照组 H-B 分级 I 级 1 例 (3.3%), II 级 12 例 (40%), 治疗组 H-B 分级变化幅度明显大于对照组 ($P < 0.05$)。治疗后 Portmann 评分: 治疗组 (17.2 ± 2.7) 分, 对照组 (12.7 ± 3.2) 分, 治疗组明显高于对照组 ($P < 0.05$)。2 组 H-B 分级评分和 Portmann 评分治疗前后比较差异有统计学意义 ($P < 0.05$)。结论 根据面部表情肌的解剖学走向, 应用 Rood 技术结合面肌协调性训练治疗重度周围性面瘫, 可使面肌的主、被动运动更充分, 传入大脑的感觉信号更具体, 更有利于中枢对肌肉再支配的恢复, 可促进面部表情肌肌张力恢复, 促进运动控制能力的提高, 提升疗效, 缩短病程。

【关键词】 重度周围性面瘫; Rood 技术; 面肌协调性训练; 面神经功能; 神经康复

【中图分类号】 R745.1 **【文献标识码】** A **【文章编号】** 1673-5110 (2021) 24-2168-08

Rood technology combined with facial muscle coordination training in the treatment of severe facial paralysis

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【Abstract】 Objective To investigate the effect of Rood technique combined with facial muscle coordination training in the treatment of severe peripheral facial paralysis. **Methods** Sixty patients with severe peripheral facial paralysis in our hospital from June 2017 to June 2020 were randomly divided into treatment group and control group, 30 cases in the treatment group and 30 cases in the control group. The control group was treated with drug therapy, acupuncture and physiotherapy. The treatment group was treated with Rood technology and facial muscle coordination training, and the same treatment as the control group. The total course of treatment was 4-6 weeks. After treatment, House-Brackmann (H-B) facial nerve function grading and Portmann score were compared between the two groups. **Results** H-B grade after treatment: in the treatment group, 8 cases (26.7%) were in

基金项目: 河南省医学科技攻关项目(编号: 201702074); 河南省科技厅科技攻关项目(编号: 182102310191)

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grade I, 16 cases (53.3%) were in grade II, and 1 case (3.3%) was in grade I, 12 cases (40%) were in grade II in the control group. The change of H-B grade in the treatment group was significantly greater than that in the control group ($P < 0.05$). Portmann score after treatment: the treatment group was (17.2±2.7) points, the control group was (12.7±3.2) points, the treatment group was significantly higher than the control group ($P < 0.05$), there was significant difference in H-B grading score and Portmann score between the two groups before and after treatment ($P < 0.05$). **Conclusion** According to the anatomical trend of facial expression muscle, the application of Rood technology combined with facial muscle coordination training in the treatment of severe peripheral facial paralysis. They can make the active and passive movement of facial muscle more fully, and the sensory signal transmitted to the brain more specific, which is more conducive to the recovery of central reinnervation of muscle. The technique can promote the recovery of facial expression muscle tension, promote the improvement of motor control ability, improve curative effect and shorten the course of disease.

【Key words】 Severe peripheral facial paralysis; Rood technology; Facial muscle coordination training; Facial nerve function; Neurorehabilitation

周围性面瘫是因各种原因导致的面神经失神经支配,面部表情肌肌张力低下的一组临床表现,多为特发性面神经麻痹(Bell麻痹)。Bell麻痹如恢复不完全会影响美观,造成患者心理和社交功能障碍。目前面瘫的治疗多为药物、针灸、理疗等方法,多为有创治疗,对Bell麻痹发病早期病情较轻的疗效尚可,但对病情较重的重度面瘫疗效不甚满意,且这些疗法缺少提升肌张力、诱发面肌主动运动的环节。随着神经康复研究的深入,人们已普遍认识到神经生理发育疗法在促进神经功能恢复中具有不可替代的作用,但针对面部表情肌的系统性功能训练对于面神经功能恢复的作用研究较少。国内关于针灸及运动疗法治疗面

神经麻痹的报道较多^[1-4],但采用Rood技术与面肌协调性训练治疗面瘫鲜见报道。本研究观察Rood技术结合面肌协调性训练治疗重度周围性面瘫的疗效。

1 资料与方法

1.1 一般资料 选取2017-06—2020-06在郑州大学第二附属医院就诊的重度周围性面瘫患者60例,均经头颅MRI排除脑桥小脑角区和脑干病变,对照组30例,治疗组30例。2组患者性别、年龄、病程、House-Brackmann(H-B)面神经功能分级、Portmann评分等比较差异均无统计学意义($P > 0.05$),具有可比性,见表1。所有患者签署知情同意书。

表1 2组患者基本资料比较

Table 1 Comparison of basic data of patients in two groups

组别	n	性别		年龄/岁	病程/d	H-B面神经功能分级		
		男	女			IV级	V级	VI级
治疗组	30	15	15	44.2±15.7	5.96±1.28	15	11	4
对照组	30	16	14	40.6±17.9	5.93±1.47	16	11	3
$t\chi^2$ 值		0.067		-0.834		0.175		
P值		0.796		0.408		0.916		

1.2 纳入和排除标准 入选标准:(1)符合周围性面瘫诊断标准^[5];(2)单侧发病,可伴或不

伴同侧耳后疼痛或乳突压痛、耳周带状疱疹、同侧舌前2/3味觉消失、听觉过敏等;(3)近期

发病,病程在 1 周内;(4)H-B 面神经功能评价分级^[6]Ⅳ~Ⅵ级。抬眉、皱眉、闭眼、耸鼻、鼓腮、示齿、噘嘴动作均不能完成,患侧额纹完全消失,眼睑不能闭合,鼻唇沟平坦,口角下垂明显,进食时食物残留于齿颊之间。

排除标准:(1)外伤、肿瘤所致面瘫;(2)中枢性面瘫^[7];(3)急性感染性多发性神经根神经炎;(4)严重认知障碍不能配合治疗者。

1.3 方法

1.3.1 对照组:2 组均进行神经内科常规治疗,给予糖皮质激素、抗病毒及神经营养药物应用,当病情稳定、面神经症状不再进展后,开始进行针灸治疗,针刺太阳穴、睛明、阳白、四白、迎香、颊车、地仓、承浆等穴位,留针 30 min。护士每天监督患者进行面部肌肉运动训练,练习抬眉、皱眉、闭眼、耸鼻、鼓腮、示齿、噘嘴、张大鼻孔 8 个动作,30 min/次,3 次/d。为增加趣味性,可练习吹口哨、气球、用吸管吹水、嚼口香糖等。

1.3.2 治疗组:治疗组在上述基础上采用 Rood 技术加面肌协调性训练治疗。患者坐于矫形镜前,认真观察自己的面肌活动,尽可能保持双侧面部表情肌的对称性。治疗者立于患者背后,根据面部表情肌的解剖学走向,运用 Rood 技术的兴奋性手法作用于各部位面肌,帮助、指导患者进行抬眉、皱眉、闭眼、耸鼻、鼓腮、示齿、噘嘴、张大鼻孔 8 个动作的练习,嘱患者尽最大努力,每个动作达到最大幅度时保持 10~15 s,休息 5 s 后重复进行训练。

Rood 技术的兴奋性手法:使用手指或软毛刷对患者患侧面部的皮肤进行快速刷擦,软毛刷应逆着患者面部毛孔生长的方向,刷擦 3~5 s 后要求患者主动运动面肌;也可用手指对患侧面部皮肤进行快速叩击,方法和擦刷相同。

Rood 技术的施加方向:①抬眉:沿枕额肌额腹的走向,从眉弓向头顶方向施加;②皱眉:沿降眉间肌方向,自额头中部向患侧眉毛内端、眉间施加;③闭眼:沿眼轮匝肌的走向,自颧部向内眦处方向施加;④耸鼻:沿提上唇鼻翼肌、鼻肌方向,自上嘴角向内眦处施加;⑤鼓腮:在患侧口角旁,自外向内施加于患侧面颊部;⑥示齿:沿颧肌、笑肌和颊肌走向,在患侧口角旁,放射状施加;⑦噘嘴:沿口轮匝肌走向,自患侧上、下口角处向内施加;⑧张大鼻孔:沿鼻孔开大肌走向施加。

面肌协调性训练:治疗者在患者练习上述 8 个动作的同时应注意抑制健侧面肌的过度活动,告知患者健侧面肌的正确运动方向和用力程度,避免过度牵拉患侧,并向患侧面肌提供正确的示范。

应根据 H-B 分级情况选择面肌协调性训练的助力方式:Ⅵ级被动运动;Ⅳ~Ⅴ级主动助力运动;Ⅰ~Ⅲ级主动运动或抗阻运动。每个动作重复做 10 遍,8 个动作练习约 30 min/次,嘱患者再自行练习 2 次/d。训练过程中应避免表情肌疲劳。

1.4 疗效评定 分别于治疗前、治疗结束后评定 H-B 分级和 Portmann 评分。

1.4.1 H-B 分级:H-B 面神经功能评价分级系统^[6]:Ⅰ级:面部各部位运动功能正常;Ⅱ级:静止时面部左右对称且张力均等,额纹基本对称,眼睛轻用力即可完全闭合,嘴部轻度不对称;Ⅲ级:两侧有明显差异但不影响外观,明显可见但不严重的联带运动,痉挛和(或)面肌抽搐,上额轻微运动,额纹不对称,用力闭眼可闭合,口明显不对称;Ⅳ级:静止时面部不对称,上额无运动,用力闭眼不能完全闭合,口明显无力,只见轻微运动;Ⅴ级:静止状态时面部明显不对称,额部无运动,眼部闭合不完全,嘴部

只有非常轻微的可察觉的运动;VI级:完全无功能,额部、眼部、嘴部均无运动。

1.4.2 Portmann 面瘫简易评分^[8]:比较抬眉、闭眼、鼓腮、噘嘴、示齿、张大鼻孔6项运动,每项满分3分。运动时:正常3分,减弱2分,明显减弱1分,消失0分。面部静态观:正常2分,轻度不对称1分,明显不对称0分,满分共20分。

1.4.3 疗效评定:①治愈:H-B分级 I 级;②显效:H-B分级 II 级;③好转:H-B分级 III、IV 级;④无效:H-B分级 V、VI 级。

1.5 统计学分析 应用 SPSS 21.0 软件包进行数据分析。组间比较:H-B 分级用卡方检验,Portmann 评分用独立样本 *t* 检验;组内治疗前后比较:H-B 分级用卡方检验,Portmann 评分

用配对 *t* 检验。以 $P < 0.05$ 为差异有统计学意义。

2 结果

治疗前2组 H-B 分级评分比较差异无统计学意义 ($P > 0.05$);治疗后治疗组 H-B 分级评分变化幅度明显大于对照组,2组比较差异有统计学意义 ($P < 0.05$)。治疗前2组 Portmann 评分比较差异无统计学意义 ($P > 0.05$),治疗后治疗组 Portmann 评分明显高于对照组,2组比较差异有统计学意义 ($P < 0.05$)。治疗组 H-B 评分、Portmann 评分治疗前后比较差异均有统计学意义 ($P < 0.05$)。对照组治疗前后 H-B 评分、Portmann 面瘫简易评分比较差异均有统计学意义 ($P < 0.05$)。见表 2~3。

表 2 2组治疗前后 H-B 分级比较 [n(%)]

Table 2 Comparison of H-B grades in the two groups before and after treatment [n(%)]

组别	n		I 级	II 级	III 级	IV 级	V 级	VI 级	P 值
治疗组	30	治疗前	0	0	0	15(50.0)	11(36.7)	4(13.3)	<0.05
		治疗后	8(26.7)	16(53.3)	6(20.0)	0	0	0	
对照组	30	治疗前	0	0	0	16(53.3)	11(36.7)	3(10.0)	<0.05
		治疗后	1(3.3)	12(40.0)	13(43.3)	4(14.0)	0	0	

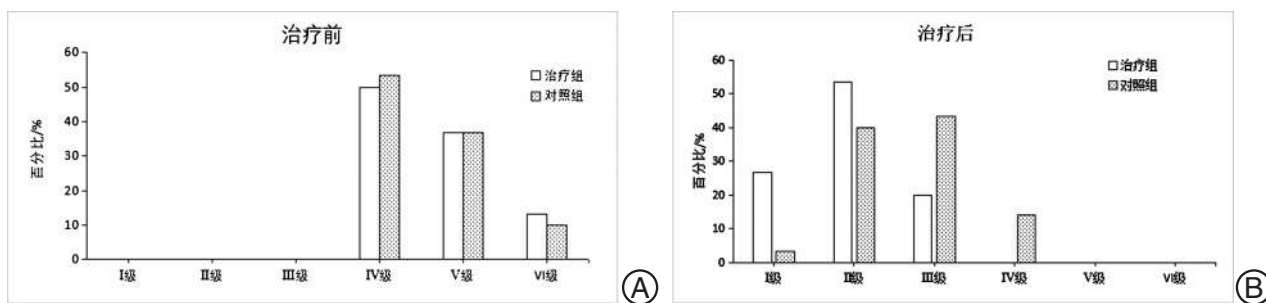


图 1 2组治疗前后 H-B 分级比较

Figure 1 Comparison of H-B grading between the two groups before and after treatment

表 3 2组治疗前后 Portmann 评分比较 (分, $\bar{x} \pm s$)

Table 3 Comparison of Portmann scores before and after treatment between the two groups (scores, $\bar{x} \pm s$)

组别	n	Portmann 评分		t 值	P 值
		治疗前	治疗后		
治疗组	30	4.4±2.4	17.2±2.7	32.607	<0.05
对照组	30	4.8±0.2	12.7±3.2	18.609	<0.05
t 值		0.668	5.717		
P 值		0.506	<0.05		

3 讨论

周围性面瘫的病变在面神经核或核以下周围神经,属于下运动神经元损伤,是面神经传导通路受损所致。早期的病理变化主要表现为神经水肿、变性及脱髓鞘改变,严重时伴随一定程度轴突变性,临床研究表明约 30% 的患者会遗留明显的后遗症^[9-10]。目前面瘫的治疗主要以激素、抗病毒药物、针灸、理疗、推拿、神经阻滞治疗为主,目前关于面瘫的研究也多集中于此。郭江玲等^[3]对 364 例面瘫患者进行研究发现,微波综合治疗面瘫有效率为 92.34%;程明霞等^[11]报道神经丛封闭治疗面神经炎有效率为 88.4%;还有学者报道对面瘫患者行针灸治疗可加速局部血液循环,促进新陈代谢,改善面神经缺血、水肿症状,减轻面神经的受压程度^[12-16]。这些方法均疗效可靠,但传统治疗方法未重视面肌的主动性训练,达到 H-B 分级 I 级,即治愈患者所占百分比不高^[14]。

随着中西医结合的发展,针灸结合运动疗法、面肌训练等治疗面神经麻痹已成为临床研究热点^[17-20]。针刺肌肉可帮助肌肉主动收缩和放松,肌纤维的充分收缩和放松可改善面部淋巴回流、促进血液循环,改善神经缺血,进而使受损的肌肉和神经功能逐渐恢复^[21-26]。本研究对照组采用针灸结合护士监督患者训练的方法,治疗后 H-B 评分较治疗前降低,Portmann 面瘫简易评分较治疗前提高,且无无效病例,表明针灸结合护士监督患者进行面肌训练可达到一定控制周围性面瘫病情的程度,同时可促进面肌功能恢复。

面瘫的本质为面部表情肌肉的迟缓性瘫痪^[27-33]。Rood 技术又称多感觉刺激疗法,是一种神经生理发育疗法,认为适当的、有目的的感觉刺激可以保持正常肌张力,并能诱发所需要的肌肉反应,主要强调选用有控制的感觉刺

激,利用反复的感觉运动反应提高患者对动作的掌握程度,以引出目的性较强的面部表情肌的动作。面肌协调性训练使面部 26 块表情肌在产生运动时,机体作用肌群之时机正确、动作方向及速度恰当的运动,以恢复有目的、可控制的主动运动,恢复双侧表情肌的对称性和美观^[34-38]。近年来神经生理发育疗法和运动疗法在神经功能恢复方面的作用越来越被业界同仁认可^[39-41]。王会会等^[2]报道红外偏振光联合运动想象治疗面神经炎可以缓解面神经肿胀,改善循环,可促进面神经恢复,提高临床治愈率。还有学者^[1]报道应用鳝鱼血外敷加中频和运动疗法治疗面神经麻痹,可促进神经功能恢复,有利于神经的再生,同时使残存的肌细胞和接受神经再支配的肌纤维肥大并强化,可延缓、预防肌萎缩,提升肌力。本研究显示,治疗后治疗组 H-B 分级评分变化幅度明显大于对照组 ($P < 0.01$),Portmann 评分与对照组差异有统计学意义 ($P < 0.01$);治疗组治愈率明显高于对照组,治愈为 H-B 分级 I 级,表明应用 Rood 技术加面肌协调性训练治疗重度周围性面瘫,大部分患者面部各部位运动功能达到正常水平。

本研究表明,根据面部表情肌的解剖学走向,应用 Rood 技术加面肌协调性训练治疗重度周围性面瘫,应用 Rood 技术的兴奋性手法,采用多途径感觉刺激输入,可使传入大脑的感觉信号更具体,更有利于中枢神经对面面部表情肌再支配的恢复,同时通过调整感觉神经的兴奋性以改变肌肉的张力,使瘫痪的面肌产生运动方向和时值正确的主动运动,促进面部表情肌肌张力恢复,使面部表情肌的主、被动运动更充分,促进面肌运动控制能力的提高。方法安全无创,可减轻患者的痛苦,缩短病程,提升周围性面瘫治疗效果。

4 参考文献

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(收稿 2021-04-16)

本文引用信息: 许梦雅, 朱庆华, 贾艳露, 陈素艳, 姜波, 张振香. Rood 技术结合面肌协调性训练治疗重度周围性面瘫疗效观察 [J]. *中国实用神经疾病杂志*, 2021, 24(24): 2168–2175. DOI: 10.12083/SYSJ.2021.09.024

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