doi: 10.13241/j.cnki.pmb.2014.20.036

颈椎康复操对不同类型颈椎病患者康复训练效果的影响

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摘要 目的:研究三种类型颈椎病患者在康复阶段采用颈椎康复操后的恢复效果。**方法:**将 211 例颈椎病患者纳入本次研究,在基础性治疗同时采用颈椎康复操进行康复训练,在训练前以及训练 2 个月、4 个月后,分别检测患者颈部肌肉电生理状况,对其疼痛进行评分。**结果:**三种类型颈椎病患者的肌肉动作电位峰值、电位传导速度均具有显著统计学意义(P<0.05);交感神经型与神经根型患者疼痛评分差异具有统计学意义(P<0.05) ,但混合型患者差异无统计学意义(P>0.05)。**结论:**颈椎康复操对不同类型颈椎病康复训练效果不同,有助于改善患者颈部肌肉运动,但在缓解疼痛方面存在差异,交感神经型、神经根型颈椎病采用颈椎康复操效果较好,但混合型颈椎病效果相对较小。

关键词: 颈椎病;颈椎康复操;康复训练;肌肉电生理

中图分类号:R68 **文献标识码:**A **文章编号:**1673-6273(2014)20-3935-03

Effects of Cervical Vertebra Rehabilitation Gymnastics on Patients with Different Types of Cervical Spondylosis

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ABSTRACT Objective: To study the recovery effect of the cervical vertebra rehabilitation exercise on three types of cervical spondylosis patients in recovery stage after restoring. **Methods:** 211 cases of cervical spondylosis patients included in this study, which received the cervical vertebrae rehabilitation exercise and rehabilitation training based on the basic treatment at the same time. In three points: before the training, training 2 months and training 4 months, the patients were detected in neck muscles electric physiology and scored their pain. **Results:** The muscle action potential peak and potential conduction velocity between three types of cervical spondylosis patients have significant statistical significance (P<0.05); The pain score between sympathetic nerve and nerve root patients has statistically significant differences (P<0.05), but there was no statistically significant difference in mixed patients (P>0.05). **Conclusion:** The rehabilitation training exercise on three types of cervical spondylosis patients has different results, which help to improve patients' neck muscle movement. But as for pain-relieving, it behaves better in the sympathetic nerve, nerve root patients rather than in mixed patients.

Key words: Cervical spondylosis; Cervical vertebra rehabilitation exercise; Rehabilitation training; Muscle electrophysiology

Chinese Library Classification(CLC): R68 **Document code: A**

Article ID: 1673-6273(2014)20-3935-03

前言

颈椎病作为一种临床常见病,主要是由颈椎退行性病变导致颈椎内神经、脊髓、血管损伤,进而引发相应临床表现,临床上分为多种类型,如交感神经型、神经根型、脊髓型和混合型等,主要体征有头颈部疼痛,有时放射至上肢[1,2]。近年来,颈椎病发病率持续增加,有相关报道显示,随着年龄增长,颈椎病发病率增加,50 岁左右人群发病率在 25%左右, 并有年轻化趋势,长期处于坐姿或站姿工作人群发病率尤其高,对人们生活质量影响很大,多次研究结果[3]表明颈椎病发病与颈椎周围肌肉存在系统性病变关系密切。为解决颈椎病治疗问题,提高颈椎病患者生活质量,本次研究主要是围绕交感神经型、神经根型、混合型等三种类型颈椎病患者采用颈椎康复操训练后治疗临床效果,现将研究结果报告如下。

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(收稿日期:2013-10-30 接受日期:2013-11-24)

1 对象与方法

1.1 一般资料

将 2011 年 2 月 -2013 年 12 月期间, 在本院接受治疗的 211 名临床诊断为颈椎病的患者纳入本次研究,其中包括男性患者 107 例(50.7%),女性性患者 104 例(49.29%);年龄范围为 35~70 岁,平均年龄为(53.6± 4.7)岁。所有本次研究对象均经颈椎部 X 线、MRI 影像学检测确认,临床症状体征均符合颈椎病诊断标准[4]。纳入标准[5]:①患者存在颈部酸胀,疼痛等不适感,常伴随出现上肢麻木、无力等,经确诊为颈椎病;②患者对本次调查研究知情,同意参加调查。排除标准:①患者存在颈椎脱位、骨折,或是骨质疏松、肿瘤等,或出现神经炎症状;②患者存在严重并发症或基础性疾病,如心脑血管、肝、肾、造血系统等严重疾病;③拒绝参与本次调查研究的。

1.2 研究方法

依照临床诊断将本次研究类型分为以下三类,如交感神经

型组(n=168,79.62%)、神经根型组(n=25, 11.85%)、混合型组(n=18, 8.53%)三组。神经根型可分为两类型,包括中神经根型20例与椎动脉型5例,椎动脉型患者相对较少,故将其纳入神经根型考虑,研究对象在年龄,性别,病情严重程度方面均衡一致,见表1所示,在基础性治疗基础上进行颈椎康复操进行功能康复训练,同时对所有研究对象一般资料、肌电图检查、疼痛感评分进行统计[6]。

表 1 一般临床资料比较

Table 1 Comparison of general clinical data

组别 Groups	n	年龄 Age	性别 Gender	病情 Patient's condition		
				轻 Mild	中 Moderate	重 Severe
交感神经型组 Sympathetic nerve group	168	53.7± 3.9	86/82	83	45	40
神经根型组 Nerve root group	25	53.5± 4.2	13/12	10	8	7
混合型组 Mixed group	18	53.6± 4.0	8/10	9	6	3

1.3 颈椎功能康复训练内容与方法

所有本次研究纳入的研究对象需由医护人员或是研究人员培训,接受颈椎康复训练法,保证颈椎康复训练能够由研究对象掌握,且练习次数保证3次,持续超过4个月,并由研究人员督促进行。颈椎康复操训练法的步骤[7]是:嘱咐患者以站姿或坐姿接受康复训练。身体放松,均匀呼吸,双脚分开,保证与肩同宽,同时双臂自然下垂。①双手揉颈:十指交叉放置于颈部后方,揉搓颈部,摩擦100次左右;②摇头晃脑:患者左右摇晃头部,由左向右,摇头幅度应保证大,次数30次,以患者感酸胀为宜;③前后点头:患者应点头动作,头前伸时应尽量拉长,维持30次左右为宜;④旋肩舒颈:两手分置两侧肩部处,同时掌心朝下,两臂先由后向前旋转20~30次,再反向旋转;⑤颈项相争:双手紧贴大腿外侧,两腿保持固定,头转到左侧同上身转到右侧,后反向作动作,持续10次;⑥摇头晃脑:头周转5次,由左边开始,后向前右后,然后再反向旋转5次;⑦头手相抗:两手交叉置于后颈部,头手互相抵抗5次;⑧翘首望月:患者头尽量向后左后转,同时应保证眼向左上方,持续5 s,后转为右后方;⑨双手托天:双掌向上手,举过头顶,同时头部向上仰视,保持5 s;⑩两眼前视:手置于胸前,劳宫穴相叠,虚按膻中,眼看前方,持续5 s,结束。在患者进行颈椎康复操训练前后进行疼痛评分、肌电图检测,并进行效果评价。

1.4 评价指标

①肌电图检查:应用NeuroExamM-800C肌电图仪作为肌电图测量工具[8],测定颈部背阔肌、斜方肌、竖脊肌等动作电位峰值、传导速度,并以此作为标准衡量颈部功能恢复状况[9]。②疼痛评定[10]:将颈部功能疼痛状况设置为0~10分,作为颈椎功能恢复衡量标准之一,无痛用0分表示,在患者能忍受范围内的疼痛为0~3分,患者疼痛程度影响睡眠为4~6分,疼痛感强烈,难以忍受为7~10分。

1.5 统计学分析

本次研究数据采用SPSS 18.0进行统计分析,组间比较采用方差分析,计数资料数据比较采用检验,以α=0.05作为数据有统计学意义的标准。

2 结果

表 2 训练前后肌肉动作电位峰值比较(mV)

Table 2 The comparison of muscle action potential peak before and after training(mV)

组别 Groups	n	训练前 Before training	训练2个月 After 2 months training	训练4个月 After 4 months training	F	P
交感神经型组 Sympathetic nerve group	168	-75.4± 4.1	-79.6± 2.3	-82.1± 1.7	98.5	0.000
神经根型组 Nerve root group	25	-76.1± 2.8	-78.3± 2.1	-82.3± 2.3	54.32	0.000
混合型组 Mixed group	18	-73.2± 3.4	-76.8± 2.5	-78.6± 2.8	29.75	0.000

表 3 训练前后肌肉动作电位传导速度比较(ms)

Table 3 The comparison of potential conduction velocity before and after training(ms)

组别 Groups	n	训练前 Before training	训练2个月 After 2 months training	训练4个月 After 4 months training	F	P
交感神经型组 Sympathetic nerve group	168	0.21± 0.06	-0.18± 0.04	0.16± 0.03	25.68	0.000
神经根型组 Nerve root group	25	0.22± 0.05	0.19± 0.06	0.17± 0.02	6.47	0.008
混合型组 Mixed group	18	0.32± 0.04	0.31± 0.05	0.29± 0.04	4.12	0.03

2.1 肌肉动作电位峰值与传导速度比较

交感神经型、神经根型、混合型颈椎病在持续锻炼 2 个月、4 个月以及康复训练前颈部肌肉动作电位峰值以及传导速度组间有统计学差异(P<0.05),见表 1、2。

2.2 不同类型颈椎病患者疼痛评分比较

交感神经、神经根型颈椎病在康复训练前、训练 2 个月以及训练 4 个月过程中,疼痛评分对比,交感神经型与神经根型数据组间差异具有统计学意义(P<0.05),但混合型颈椎病差异无统计学意义(P>0.05),见表 3。

表 4 操训练前后患者疼痛评分比较

Table 4 The comparison of pain score before and after training

组别 Groups	n	训练前 Before training	训练 2 个月 After 2 months training	训练 4 个月 After 4 months training	F	P
交感神经型组 Sympathetic nerve group	168	6.9± 0.6	4.3± 0.5	2.5± 0.3	2512.3	0.000
神经根型组 Nerve root group	25	5.8± 0.7	3.9± 0.6	2.9± 0.4	78.64	0.000
混合型组 Mixed group	18	5.2± 0.5	4.8± 0.3	4.6± 0.3	3.23	0.812

3 讨论

随着现如今生活节奏日趋加快，人们生活习惯也随之改变,常有一种工作人群维持一定不良姿势,长此以往,将会造成颈椎部一系列病变，也由于急慢性病使得人们遭受颈椎病困扰,常有颈椎曲度改变,骨质疏松、骨质增生等症状出现[11-13],压迫神经,血管等,造成患者颈部疼痛,常放射到上肢部位等,伴随酸、麻、胀痛以及感觉异常等症状出现,造成患者生活质量下降。现阶段,对于病情严重影响患者健康,临床症状非常突出的颈椎病患者的主要治疗方式为外科手术治疗[14]。本次研究主要以颈椎康复操来改善患者颈部功能,增强肌肉灵活性,缓解疼痛,提高患者生活质量。

颈椎康复操对不同类型颈椎病肌肉动作电位峰值及传导速度的作用:本次研究通过对比不同类型颈椎病采用颈椎康复操在肌电图仪记录肌肉静止或收缩时的电活动,对比不同组间颈椎部神经、肌肉及神经传导功能,同时也可以全面反映对颈椎病患者进行评估。数据分析结果显示,研究对象在交感神经型、神经根型以及脊髓型和混合型颈椎病在颈肩部肌肉动作电位峰值、动作电位传导速度相比有差异(P<0.05),这表明对患者采用颈椎康复操训练,可明显促进颈部血液循环,促进肌肉功能恢复正常[15],改善电生理状况,对提升肌肉神经电讯号传导速度,改善动作电位峰值等均有较好效果,从而颈部关节及软组织功能,降低颈椎骨损伤,延缓颈椎病变[16]。

颈椎康复操临床效果:有文章报道显示[17],对颈肩部肌肉和骨骼进行有效锻炼，可以提升该部分肌肉的收缩力和耐力,减轻疼痛。在本次研究不同类型颈椎病数据结果对比显示,颈部康复操训练后检查后发现,患者疼痛感大幅度减轻,且随时间变化,减轻效果也随之显现,交感神经、神经根型颈椎病在康复训练前、训练 2 个月以及训练 4 个月过程中,疼痛评分对比,交感神经型与神经根型数据组间差异具有统计学意义(P<0.05),但混合型颈椎病差异无统计学意义(P>0.05)。结果提示颈椎康复操是一项简单易学的颈椎病康复训练法，可缓解颈椎病疼痛,改善患者生活质量,甚至可以作为预防颈椎病的训练方法。同时相关研究还表明[18-20],积极有益的康复功能训练对颈肩部肌肉功能及血循环功能改善具有十分重要的作用。

综上所述,交感神经型、神经根型、脊髓与混合型等三种类型颈椎病患者在康复训练阶段,采用康复训练操,可以缓解颈肩酸痛、肌肉酸胀,加速血循环,同时颈椎病康复效果较为显著。

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