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显微血管减压术对面肌痉挛患者生活质量的影响*

王晓嵩 马召儒 张 峰 魏晓明 薛祎腾 刘 利[△]

(哈尔滨医科大学附属第一医院 神经外科 黑龙江 哈尔滨 150000)

摘要 目的:研究显微血管减压术对面肌痉挛(HFS Hemifacial Spasm)患者生活质量的影响。**方法:**对2014年至2016年底在哈医大一院神经外科四科接受显微血管减压手术(MVD Microvascular Decompression)治疗的40名面肌痉挛患者进行生活质量量表(QOL Quality of Life)评分,对患者的疗效及治疗前后生活质量的变化情况进行统计学分析。**结果:**治疗后,MVD的明显缓解率为95%,手术前后不同生活质量项目评分的差异具有统计学意义($P<0.05$),术前QOL量表评分总值为 21.83 ± 2.01 ,术后总值为 2.15 ± 0.8 ,术后QOL量表评分总值较术前显著降低($P<0.05$)。**结论:**显微血管减压手术对面肌痉挛患者的症状缓解效果显著,同时可以明显改善患者的生活质量,特别是对患者内心窘迫的改善最为明显。

关键词:面肌痉挛;显微血管减压术;生活质量量表

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Effect of Microvascular Decompression on the Quality of Life in the Patients with Hemifacial Spasm*

WANG Xiao-song, MA Zhao-ru, ZHANG Feng, WEI Xiao-ming, XUE Yi-teng, LIU Li[△]

(Department of Neurosurgery Harbin Medical University, The First Affiliated Hospital of Harbin Medical University, Harbin, Heilongjiang, 150000, China)

ABSTRACT Objective: To investigate the improvement of quality of life in patients with hemifacial spasm (HFS) under microvascular decompression. **Methods:** A quality of life scale (QOL) was performed on 40 patients with hemifacial spasm treated with microvascular decompression surgery (MVD) in the Department of Neurosurgery, Harbin Medical University, from the beginning of 2014 to the end of 2016. Statistical analysis was performed on the improvement of quality of life. **Results:** The significant response rate of MVD was 95%. The quality of life questionnaire was statistically significant. The difference between the different scores before and after surgery was statistically significant ($P<0.05$). The total score of preoperative QOL scale was 21.83 ± 2.01 . The total score of postoperative QOL scale was 2.15 ± 0.8 . **Conclusion:** Microvascular decompression surgery has significant relief effect on patients with hemifacial spasm, and can significantly improve the quality of life of patients. The study shows that postoperative improvement in patients with felt embarrassed is most evident.

Key words: Hemifacial spasm; Microvascular decompression; Quality of life

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前言

面肌痉挛是一种表现为间歇性和不可控制的同侧面部神经支配的肌肉收缩的运动障碍,是一种较为常见的脑神经疾病^[1]。多数面肌痉挛患者在中年以后起病,患病率男性为0.074%,女性为0.145%,女性较多,年发病率为0.8/10万。该疾病虽无生命危险,但患者因面部抽搐在社会生活中会经受长期的精神压力,影响正常的生活,导致生活质量的下降^[2,3]。

显微血管减压手术在20世纪80年代被Jannetta推广^[4],随后在治疗面肌痉挛方面被广泛认可。随着术中检测等技术不断的进化,手术缓解率越来越高,而患者对于生活质量的要求

也越来越高,但国内外对面肌痉挛患者的术后生活质量的关注度较低。因此,本研究对同一术者进行的40例HFS患者进行术前和术后生活质量的改变进行分析。结果报道如下。

1 资料与方法

1.1 一般资料

回顾分析2014年至2016年底在哈医大一院神经外科四科应用显微血管减压手术治疗的面肌痉挛患者的临床资料,所有患者均由同一术者进行手术,避免因术者不同导致研究结果不严谨。患者经体格检查和病史确诊为面肌痉挛,而后将进行肌电图及MRI(Magnetic Resonance Imaging)等辅助检查,明确

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作者简介:王晓嵩(1991-),硕士研究生,研究方向:功能神经外科, E-mail: superxsmango@163.com

[△] 通讯作者:刘利(1974-),研究生导师,副教授,副主任医师,研究方向:功能神经外科, E-mail: h.e2000@hotmail.com

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有无占位性病变及明确责任血管。年龄及肉毒素注射治疗史不作为手术禁忌,排除有肿瘤、脱髓鞘、血管畸形、小脑扁桃体下疝畸形的患者。

1.2 生活质量调查表

本次研究的生活质量调查问卷首先由学者 TAN 提出^[9],应

用在显微血管减压术治疗面肌痉挛的患者中^[6,7],而后延伸增加了关于睡眠障碍的问题。2017 年,SEKULA 团队把 3 条关于完成日常生活难度的问题也加入其中,共十个方面(表 1)。每个问题是 5 个等级从 0(没有影响)到 4(难以完成)^[8]。同时,应用 Cohen 分级标准进行术前术后分级对比。

表 1 面肌痉挛生活质量量表

Table 1 The QOL parameters measured on a 0-4 scale

Parameter
Difficulty driving
Difficulty reading
Difficulty watching TV/movies
Difficulty performing job duties (if retired, difficulty participating in hobbies & other activities)
Felt depressed
Felt isolated
Avoided eye contact
Felt embarrassed about having the condition
Felt worried about others' reaction to you
Sleep disturbance

1.3 统计学分析

采用 SAS9.4 (Statistical Analysis System 9.4) 进行统计分析。Cohen grading standard and gradings 采用例数(百分比)描述,术前术后的比较采用 Fisher 确切概率法。定量资料采用均值和标准差描述,组间前后比较采用配对 t 检验。以 $P < 0.05$ 为差异具有统计学意义。

2 结果

共有 69 名患者接受了 MVD 手术,排除因肿瘤、血管畸形等其他原因并且成功进行随访的患者共有 40 名,其中有 29 名患者是女性,11 名患者为男性,患者手术时平均年龄为 56 岁,平均术后随访时间为 32 个月(图 1)。

2.1 术前术后 Cohen 分级

所有患者术前进行 Cohen 分级,II 级 1 名,III 级 29 名(72.5%),IV 级 9 名(22.5%)。患者于术后 6 个月再次进行 Cohen 分级,可见 0 级患者 31 名(77.5%),I 级 4 名(10%),II 级 3 名(7.5%),III 级 2 名(5%)。无功能缺失的患者为 0 级、I 级、II 级患者,共 38 名,手术的明显缓解率为 95%(表 2)。术后有 3 名患者出

现暂耳鸣、听力障碍,术后给予改善微循环治疗后,在后期随访中听力逐渐恢复,耳鸣症状消失。有 2 名患者有中度的面部麻痹。

采用 Fisher 确切概率法比较术前术后的 Cohen grading 评分分布。结果显示:患者术后症状明显改善,大部分患者无功能缺失,患者术前和术后的 Cohen grading 比较差异具有统计学意义($P < 0.05$)。

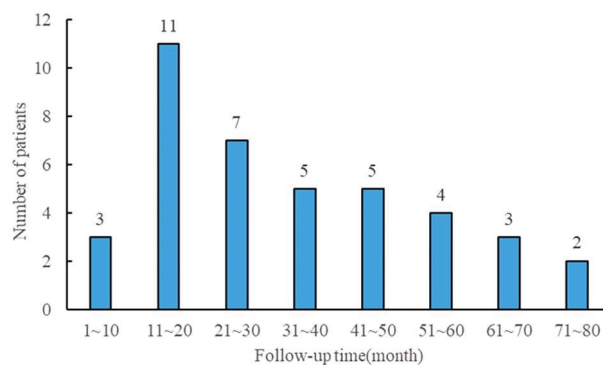


图 1 术后随访时间

图 1 Postoperative follow-up time

表 2 Cohen 分级标准及手术前后分级对比

Table 2 Cohen grading standard and gradings pre- and post- operation (n, %)

Grade	Item	Preoperation	Postoperation	P
0	No spasm	0(0)	31(77.5)	<0.0001
I	Mild, barely noticeable	0(0)	4(10.0)	
II	Mild, without functional impairment	1(2.5)	3(7.50)	
III	Moderate spasm, moderate functional impairment	29(72.5)	2(5.0)	
IV	Severe, incapacitating spasm, affect everyday life and work	9(22.5)	0(0.0)	

2.2 生活质量改善

本次研究分别对患者术前及术后 6 个月进行生活质量调查问卷,使用配对 t 检验对患者手术前后不同项目进行比较,结果显示手术前后不同项目的评分比较差异具有统计学意义,术后各项目评分均明显低于术前($P<0.05$,表 3)。由表 3 可见,术前最为影响生活质量的一项为面肌痉挛使患者感到窘迫,同时术前术后差值最大的也为这一项,说明术后对此改善极为明显。

2.3 术后对于手术的倾向程度

作为问卷最后的一部分,还会问患者对于选择手术治疗的倾向程度是几级,分 5 级,0 级至 4 级,0 级代表不倾向,4 级表示对手术的需要很迫切。我们发现 Cohen 分级越高并且 QOL 评分高的患者,手术倾向程度为 3 级、4 级,而 Cohen 分级低,且生活质量还未出现明显影响的患者,一般为 0 或 1 级,很少选择手术治疗。

表 3 手术前后不同项目评分的比较结果

Table 3 Comparison of the QOL questionnaire responses pre- and postoperation

Subscales	Preop	Postop	Difference	t	P
Difficulty driving	1.53± 0.55	0.13± 0.33	1.40± 0.59	14.99	<.0001
Difficulty reading	2.00± 0.64	0.20± 0.41	1.80± 0.72	15.74	<.0001
Difficulty watching TV/movies	1.55± 0.64	0.13± 0.33	1.43± 0.78	11.54	<.0001
Difficulty performing job duties	2.25± 0.44	0.20± 0.41	2.05± 0.64	20.31	<.0001
Felt depressed	2.33± 0.47	0.30± 0.46	2.03± 0.66	19.41	<.0001
Felt isolated	2.05± 0.50	0.18± 0.38	1.88± 0.61	19.53	<.0001
Avoided eye contact	2.48± 0.51	0.28± 0.45	2.20± 0.65	21.46	<.0001
Felt embarrassed about having the condition	3.40± 0.59	0.30± 0.46	3.10± 0.74	26.34	<.0001
Felt worried about others' reaction to you	2.50± 0.55	0.23± 0.42	2.28± 0.75	19.17	<.0001
Sleep disturbance	1.75± 0.54	0.23± 0.42	1.53± 0.72	13.48	<.0001

3 讨论

面肌痉挛是一种以面部肌肉自发性痉挛为特征的疾病,并且在大多数情况下被认为是由于面部神经被血管压迫引起的^[9,10]。随着对面肌痉挛的研究,Jannetta 提出面肌痉挛多由于面神经出脑干处(root exit zone, REZ)受到迂曲血管的压迫所致。随后,Tommi 对压迫地点进一步细化,分为脑干根部出口点(root exit point, RExP)、脑干根部分离点(root detachment point, RDP)和过度区域(transitional zone)^[11]。Sekula 和 Hughes 首先应用神经中枢髓鞘部分的术语,他们描述面神经暴露于脑干桥延沟,即为 RExP 点,随后面神经延伸到脑桥腹侧表面,长约 8-10 mm,这部分称为附加部分,随后面神经离开脑干根部,这个点即为 RDP。在 MVD 术中,RDP 是个很好的坐标点。下一部分是面神经的过渡区,区段长约 4 mm,为中央神经胶质髓鞘转变为由施万细胞产生的外周髓鞘^[12,13]。

治疗面肌痉挛过程中,口服药物治疗面肌痉挛对大多数患者而言效果不满意^[14]。目前治疗面肌痉挛存在两种公认的治疗方法:肉毒杆菌毒素注射(BT)和显微血管减压术(MVD)。MVD 是一种理想的手术方法,通过“隔离”血管减轻对神经的压迫缓解症状^[15,16]。本研究包括 40 名患者,其有效率为 95%,与文献报道一致^[17-19]。本次研究对于患者术前术后 Cohen 分级比较,术前 III 级 29 名(72.5%),IV 级 9 名(22.5%),而术后可见 0 级患者 31 名(77.5%),I 级 4 名(10%),II 级 3 名(7.5%),提示 MVD 可以使面肌痉挛患者的症状得到明显改善。同时,生活质量的评分表中,手术前后不同项目的评分比较差异具有统计学意义

($P<0.05$),术后各评分均明显低于术前,表明 MVD 可以使患者的生活质量明显改善。同时,术前最为影响生活质量的一项为面肌痉挛使患者感到窘迫,同时术前术后差值最大的也为这一项。这与 Heuser 和 Lawrence 的文献报导结果相一致^[4,6]。通过对各级 Cohen 分级患者对于手术选择的倾向程度的统计,我们发现分级越高,且 QOL 评分高的患者,对手术的倾向程度越大,这说明有更严重症状的患者更有动力接受更具侵略性的治疗方案。

随着神经外科医生对 MVD 手术的经验提升,同时随着电生理技术的发展与应用,可以通过使用诸如脑干听觉诱发电位等技术来降低手术并发症及风险^[20]。电生理学监测通过帮助外科医生识别潜在的可逆情况,将这种并发症的发生率降低至~2.3%至 12.3%^[21,22]。Damaty 提出了术中电生理检测评分系统,通过术中对学生进行脑干听力诱发电位 (brainstem auditory evoked potentials, BAEPs)所检测到的波形进行打分,主要关注波 I、波 I 与波 III 之间的延迟和波 V 的表现进行术中快速评分,发现明显的变化,即将到达高风险值时,术者可以立即修改手术操作,可以有效预测术后听力障碍的风险,同时规避术中高风险操作。若操作过程中,观察到波形改变,提示血管痉挛,此时可以停下操作,用用罂粟碱液体浸泡,待血管痉挛缓解后,继续操作^[23]。在对面肌痉挛术后症状改善的观察中,我们发现术后患者存在症状立即缓解、延迟缓解和症状无改善的情况,这时如何进行下一步治疗?是保守观察还是行二次手术?二次手术的时机选择?为了找到问题的答案,我们查阅了相关的文献,发现这些问题在文献中同样存在争议。Ishikawa 在研究中

报道其 175 名面肌痉挛的患者在术后随访一周至八个月中,有 50.3% 的患者出现延迟缓解^[24]。Chang 在研究中报道其 587 名面肌痉挛的患者,术后在随访 12 月至 20 个月的时间段中,延迟缓解率为 2.9%^[25],但是在 Ishikawa 和 Chang 看来,术后没有满意效果甚至状态更差的患者中,不认为这种情况是二次手术的明确指征,同时他们认为术后三个月是评估术后效果和选择再次手术的最早时间^[24,25]。Sindou 和 Keravel 建议第一次手术失败的患者至少应该观察一年^[26]。在最新的文献报道中,李世亭及仲骏两位教授及他们的团队报道了 3095 例面肌痉挛病例,其中有 174 名患者症状未立即缓解,在研究中发现延迟缓解的原因其中之一可能是面神经的减压过程中,稍微使责任血管移位,但不足以完全减压,但正因为这细小的移位,给了神经与血管自我修复的机会,使神经外膜和血管外膜恢复并隔离,异常兴奋电位消除,产生的延迟缓解的现象。并且提出二次手术可给患者更好的机会实现症状的缓解,在颅内各组织尚未黏连的情况下,早一点再次手术不仅容易而且安全^[17]。

显微血管减压术治疗面肌痉挛患者的术后缓解率在逐渐上升,跟术者的经验技术以及电生理检测的发展密不可分,术者是否做到垫片位置的准确放置、责任血管是否与神经完全分离、垫片的位置是否因为术中还复小脑和术后颅内压恢复导致移位,这三点都与术后的效果息息相关。正因考虑这些因素,本研究中所有患者均由同一术者进行手术。作为神经外科医生,对面肌痉挛患者,应选择适合手术患者,做到完善的术前准备及预防术后并发症的出现。使患者术后症状尽可能缓解并减少并发症的出现,可以有效提高患者术后的生活质量。

综上所述,显微血管减压手术对面肌痉挛患者的症状缓解效果显著,同时可以明显改善患者的生活质量。作为神经外科医生,如何给予患者介绍并推荐适合患者的治疗方案,使更多面肌痉挛患者尽早得到适合的治疗,提高生活质量,是一门必修课。

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