· 论著 临床诊治 ·

# 777例微血管减压术治疗面肌痉挛患者回顾性分析

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【摘要】 **目的** 分析微血管减压术(MVD)治疗面肌痉挛的临床效果及并发症,总结不同责任血管处理经验。**方法** 收集2017-01—2020-12湖北医药学院附属太和医院神经外科经微血管减压术治疗的面肌痉挛患者777例,根据责任血管分为2组,A组669例责任血管为微小血管,B组108例责任血管为椎动脉,回顾性分析相关临床资料。**结果** A组中577例患者MVD术后面肌痉挛即刻恢复正常,88例延迟恢复,4例无效,4例随访期间复发;术后57例面瘫,6例听力损伤,1例吞咽困难,1例术后脑脊液漏。B组中80例患者术后立即恢复缓解,25例患者延迟恢复,3例患者无效,2例患者随访期间复发;术后13例患者出现面瘫,4例吞咽困难,4例听力损伤。2组术中均无死亡。**结论** 椎动脉相关性面肌痉挛延迟治愈率及术后脑神经损伤发生率高于其他微血管相关性面肌痉挛,但远期脑神经损伤发生率无差异。

【关键词】 面肌痉挛;微血管减压术;椎动脉;脑神经损伤;复发
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**Retrospective analysis of 777 cases of hemifacial spasm treated by microvascular decompression**

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【**Abstract**】 **Objective** To analyze the clinical effect and complications of microvascular decompression in the treatment of facial spasm, and summarize the experience of different responsible vessels. **Methods** Totally 777 patients with hemifacial spasm treated by microvascular decompression in the Department of Neurosurgery of Taihe Hospital Affiliated to Hubei Medical College from January 2017 to December 2020 were collected. According to the responsible vessels, they were divided into two groups. Six hundred and sixty-nine patients in group A were responsible vessels, 108 cases of vertebral artery were responsible vessels in group B. The relevant clinical data were analyzed retrospectively. **Results** In group A, 577 patients recovered immediately after MVD, 88 patients delayed recovery, 4 cases were ineffective, and 4 cases recurred during follow-up. There were 57 cases of facial paralysis, 6 cases of hearing impairment, 1 case of dysphagia and 1 case of postoperative cerebrospinal fluid leakage. In group B, 80 patients recovered immediately, 25 patients recovered late, 3 patients were ineffective, 2 patients recurred during follow-up. There were 13 cases of facial paralysis, 4 cases of dysphagia and 4 cases of hearing loss. **Conclusion** The delayed cure rate and postoperative cranial nerve injury rate of vertebral artery related facial spasm are higher than those of other microvascular related facial spasms. However, there was no significant difference in the incidence of long-term cranial nerve injury。

【**Key words**】 Hemifacial spasm;Microvascular decompression;Vertebral artery;Cranial nerve injury;Recurred

面肌痉挛(hemifacial spasm, HFS)是一种受同侧面神经支配肌肉不自主抽搐为特征的脑神经疾病[1-3],面神经根部被血管压迫是其最常见的病因[4-6]。面神经微血管减压术因其并发症少、治疗效果佳在

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临床上广泛应用。研究显示，当压迫血管与椎动脉相关时行微血管减压术存在技术困难[7-8]。

## 1 资料与方法

**1.1 临床资料** 分析患者临床特点，术中发现以及术后结果：术中患者分为2组，A组669例，责任血管为小血管。由于小脑前下动脉（anterior inferior cerebellar artery，AICA）及小脑后下动脉（posterior inferior cerebellar artery，PICA）均为小血管，其直径小于椎动脉（vertebral artery，VA），故称为小血管或微血管。B组责任血管为椎动脉或椎动脉合并其他微血管者。

**1.2 手术方法** 全麻条件下，患者取侧卧位，术中常规监测异常肌反应及听觉脑干电位。手术采取枕下乙状窦后入路，术中确认责任血管为微血管将其纳入微血管组。将微血管与面神经根部游离，在微血管与面神经根部之间置入特氟龙棉片。总体而言，这种类型的面肌痉挛最为常见，手术并不复杂。对于责任血管为椎动脉相关者，通常为椎动脉建立间接支撑：打开后组脑神经的蛛网膜，释放脑脊液，逐渐到面神经平面，充分游离椎动脉，特氟龙棉片放置在后组脑神经水平，置于脑干与椎动脉之间，间接缓解其对面神经压力，充分暴露手术空间。当面神经根部充分暴露后，大多数情况椎动脉下面的小血管也能辨别为责任血管，在神经电生理监测之下，责任血管与面神经之间置入特氟龙棉片。

**1.3 随访** 所有患者均通过电话或门诊随访，随访时间16～65个月。

**1.4 统计学分析** 统计软件采用SPSS 23.0，2组比较通过卡方检验及独立$t$检验，$P<0.05$为差异有统计学意义。

## 2 结果

2组患者性别、年龄、发病时间、手术结果及并发症情况见表1，术后6个月并发症仍存在定义为永久并发症。2组患者性别、年龄、发病时间差异无统计学意义（$P=0.063$），椎动脉相关面肌痉挛患者左侧发病率高于微血管相关面肌痉挛者（$P<0.001$），术后即刻缓解率A组高于B组（$P=0.002$），B组术后脑神经损伤并发症高于A组（表2～3）。平均随访42.6个月，2组手术远期治愈率比较差异无统计学意义（$P=0.072$，表3），另外，2组永久性脑神经损伤发生率比较差异无统计学意义（$P=0.72$，表3）。

## 3 讨论

面肌痉挛患者发病通常在40～60岁，男性发病

**表1 2组患者临床特点及手术结果比较**

**Table 1 Comparison of clinical characteristics and surgical results of two groups**

| 资料 | | A组（$n$=669） | | B组（$n$=108） | $P$值 |
|---|---|---|---|---|---|
| 责任血管 | AICA | 311 | VA+AICA | 87 | |
| | PICA | 206 | VA+PICA | 45 | |
| | AICA+PICA | 152 | VA+AICA+PICA | 24 | |
| | | | VA | 39 | |
| 性别（男/女） | | 275/394 | | 45/63 | 0.099 |
| 患侧（左/右） | | 398/271 | | 83/25 | <0.001 |
| 发病年龄/岁 | | 50.1±8.5（33～75） | | 51.5±7.5（29～74） | 0.063 |
| 发病时间/月 | | 10～216 | | 12～233 | 0.375 |
| 手术结果 | | | | | |
| 即刻缓解 | | 577 | | 80 | |
| 延迟缓解 | | 88 | | 26 | |
| 无效 | | 4 | | 0 | |
| 复发 | | 4 | | 2 | |
| 并发症 | | | | | |
| 面瘫 | | 57 | | 13 | |
| 听力下降 | | 6 | | 4 | |
| 吞咽困难 | | 1 | | 4 | |
| 脑脊液漏 | | 1 | | 0 | |
| 其他 | | 0 | | 0 | |

**表2 2组即刻及远期手术结果比较** [$n$(%)]

**Table 2 Comparison of immediate and long-term surgical results of two groups** [$n$(%)]

| 手术 | 术后即刻 | | 术后远期 | |
|---|---|---|---|---|
| 结果 | A组 | B组 | A组 | B组 |
| 治愈 | 577(86.3) | 80(73.5) | 661(98.8) | 104(96.3) |
| 未治愈 | 92(13.7) | 28(26.5) | 8(0.2) | 4(0.7) |
| $P$值 | 0.002 | | 0.072 | |

**表3 2组脑神经损伤情况** [$n$(%)]

**Table 3 Cranial nerve injury of two groups** [$n$(%)]

| 组别 | 短暂性 | 永久性 |
|---|---|---|
| A组 | 62(9.3) | 2(0.3) |
| B组 | 16(15.2) | 5(4.8) |
| $P$值 | 0.002 | 0.72 |

率为7.4/100 000,女性发病率为14.5/100 000,女性更为常见[9-11]。相对于微血管压迫导致的面肌痉挛,椎动脉相关性面肌痉挛更倾向于左侧发病[2],与本组病例结果相同。

文献[12-14]认为左侧发病率高是由于左侧椎动脉直径通常大于右侧,其血流方向导致左侧椎动脉延伸扩展,从而压迫椎动脉;解剖变异及椎动脉扩张也能导致此类疾病。目前,微血管减压术是治疗面肌痉挛的有效方法[15-17],但有效率及并发症发生率各家报道不一[18-20],这是由于责任血管的辨认及充分的减压仍是微血管减压术的关键。当责任血管为AICA及PICA时,常规减压手术并不困难,但对于椎动脉相关性面肌痉挛,微血管减压术就会变得困难,且手术效果有时达不到预期效果。由于椎动脉相关性面肌痉挛病例的面神经根部受到压力较大,常规办法不一定能有效、安全及充分减压。有些研究者[8]采用新的手术方法,如生物胶粘贴法、悬吊法及椎动脉包裹法等。

SLNDOU等[4]介绍的悬吊技术被认为是减少椎动脉对面神经根部搏动性压迫的可靠办法。然而,这种技术可能导致更高的并发症发生率,并不是适合每个椎动脉相关性面肌痉挛患者。此外,如果减压效果不满意,被生物胶固定的血管很难再次移动。ZAIDI等[3]认为单独使用特氟龙棉片足以解决绝大部分病例,我们也认为单纯特氟龙棉片足以达到充分减压的效果。本组病例中,对于手术无效及术后复发病例,将特氟龙棉片尽量置入责任血管及面神经根部,而不是置于脑干和血管之间。对于微血管压迫导致的面肌痉挛,充分解剖松解责任血管,获得足够手术区间,随后面神经根部的减压就会变得简单[21-22]。对于椎动脉相关性面肌痉挛患者,在深部狭小空间对粗大坚硬椎动脉强行操作非常危险[23-24],此时应在后组脑神经水平充分先松解椎动脉,随后使用特氟龙棉团置于脑干及椎动脉之间,起到支撑左侧的作用,从而暴露面神经根部,并减轻其对面神经根部的压力,这样就产生足够的手术空间。

与文献[25]报道一致,本组病例中大部分椎动脉相关性面肌痉挛患者椎动脉下方可发现伴行小血管,这正是责任血管,随后将特氟龙棉片置入其与面神经根部之间。手术过程中将特氟龙棉片置入正确位置,且不能置入太多特氟龙棉片,以避免减压不充分或产生新的压迫。有文献报道,90%椎动脉相关性面肌痉挛患者能通过微血管减压术完全缓解症状。通过2 a的随访,椎动脉相关性面肌痉挛患者手术有效率与非椎动脉相关性面肌痉挛差异无统计学意义。MASUOKA等[6]报道,86%的椎动脉相关性面肌痉挛患者术后面肌痉挛完全消失,同样认为椎动脉相关性面肌痉挛病例手术有效率与普通组差异无统计学意义。本组病例中,小血管压迫导致的面肌痉挛患者即刻缓解率明显高于椎动脉相关组,但最终有效率差异无统计学意义,因此,推测B组病例容易出现延迟缓解的问题,这可能是由于椎动脉压迫导致面神经根部曾受更大的压迫,从而面神经恢复延迟以及面神经运动核兴奋性降低所致[11-12,26-29]。由于椎动脉相关性面肌痉挛病例解剖关系复杂,压力高,因此,术者为解除血管与神经之间的压迫,通常需要进行更多的手术操作及花费更多手术时间。

本研究显示,椎动脉相关性面肌痉挛病例术后即刻发生脑神经损伤发生率较高,与文献[13,24,29-30]报道一致。为减少并发症的发生,手术操作应当尽量轻柔、细致。有报道[13,25,27-28]认为,悬吊技术能有效治疗椎动脉相关性面肌痉挛,但深部悬吊技术需要更为复杂的操作,可能导致并发症的发生率增加。本组中所有病例均使用特氟龙棉片减压,对于椎动脉相关性面肌痉挛患者,应尽量避免直接在面神经根部过度手术操作,间接建立支撑,缓解其对面神经根部压力,并为减压制造手术空间提供了有效办法[31-33]。

目前回顾性研究集中在不同血管相关性面肌痉挛,尤其是椎动脉相关性面肌痉挛。微血管减压术是治疗面肌痉挛安全有效的方法,与微小血管压迫导致的面肌痉挛相比,椎动脉相关性面肌痉挛术后延迟缓解发生率及暂时性脑神经损伤发生率较高,同时,手术操作难度及时间更长,术中应更为耐心细致,以达到最好的结果。

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