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显微手术在矢状窦镰旁脑膜瘤中的治疗效果分析 *

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摘要 目的:研究显微手术在矢状窦镰旁脑膜瘤中的治疗效果。**方法:**选取 2014 年 7 月至 2015 年 6 月本院收治的 150 例矢状窦镰旁脑膜瘤患者,根据投硬币法分为观察组和对照组,每组 75 例。观察组采取显微手术进行治疗,对照组采用常规开颅手术方式进行治疗,比较两组患者的手术指标、手术切除率、临床疗效及并发症的发生率。**结果:**观察组的术中输血量、出血量均显著少于对照组(P<0.05),两组患者手术时间、手术切除程度、改善率、致残率及死亡率比较差异均无统计学意义(P>0.05)。观察组总的并发症发生率显著低于对照组(P<0.05)。**结论:**经显微手术治疗矢状窦镰旁脑膜瘤患者术中输血量和出血量较少,手术效果良好,安全性高。

关键词:显微手术;矢状窦镰旁脑膜瘤;治疗效果

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Therapeutic Effect of Microsurgery in the Treatment of Para-meningiomas of Sagittal Sinus*

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ABSTRACT Objective: To study the curative effect of microsurgery in treatment of para-meningiomas of sagittal sinus. **Methods:** 150 patients with meningioma of the sagittal sinus who were treated in our hospital from July 2014 to June 2015 were selected and randomly divided into the observation group and the control group, with 75 cases in each group. The patients in the observation group were treated with microsurgery, and the patients in the control group were treated with conventional craniotomy. Then the operation indexes, surgical resection rate, clinical curative effect and complication rate were observed and compared between the two groups before and after the treatment. **Results:** The amount of blood transfusion and blood loss in the observation group were significantly lower than those of the control group (P<0.05). There was no significant difference in the operation time, the improvement rate, the morbidity rate and death rate between the two groups (P> 0.05). The incidence of complications in the observation group was significantly lower than that of the control group (P<0.05). **Conclusion:** Microsurgical treatment of meningiomas near sagittal sinus has less blood transfusion and hemorrhage, with better curative effect and lower incidence of complications, which is worthy of clinical application.

Key words: Microsurgery; Sagittal sinus near the meningioma; Therapeutic effect

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前言

脑膜瘤是颅内最为常见的肿瘤,其中矢状窦旁脑膜瘤主要是指基底部位处于矢状窦壁,大脑镰旁脑膜瘤主要是指基底部位处于大脑镰[1]。由于大脑镰和矢状窦的关系,常常隐匿存在于大脑皮质下方,大部分属于双侧性,再加之肿瘤生长过缓,在临床早期无典型的神经系统症状,当肿瘤生长到一定程度并发生占位效应时,才有神经系统定位和颅高压等症状发生,体现为活动障碍、肌力减退、肢体麻木、癫痫、头痛等[2-3]。由于肿瘤伴有十分丰富的血供, 会给重要的皮质静脉及矢状窦带来影响,进而加大大脑镰旁脑膜瘤和矢状窦旁脑膜瘤的手术难度[4]。随着影像学以及显微外科技术的不断发展与进步,显微手术在治疗矢状窦镰旁脑膜瘤中的疗效也得到不断改善[5]。为给临床在治疗矢状窦镰旁脑膜瘤中提供更多可借鉴之处,本研究就显微手术在矢状窦镰旁脑膜瘤中的治疗效果及其预后进行观察,报道如下。

1 资料与方法

1.1 临床资料

选取 2014 年 7 月至 2015 年 6 月期间本院收治的 150 例矢状窦镰旁脑膜瘤患者,纳入标准:① 术前所有患者均经磁共振成像、CT 检查得以确诊,并且在术后也通过病理学检查得以证实;② 患者自愿加入本次研究;③ 依从性较好,能配合医护人员完成本次研究;④ 在本院神经外科进行过手术治疗。排除标

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准:① 既往存在脑血管疾病病史;② 伴有严重的心、肺、肾、肝功能障碍;③ 因头颅外伤史导致患者日常功能受损者。整个研究均在患者及其家属的知情同意下完成,同时获得了本院伦理委员会的批准与实施。根据投硬币法将本次研究对象分为观察组和对照组两组,每组均为 75 例。两组患者性别、年龄、肿瘤直径、临床症状等一般资料比较无显著性差异(P>0.05),具有可比性。

表 1 两组患者一般资料比较

Table 1 Comparison of the general information between two groups

Groups	Sex	Age(year)		Tumor diameter (cm)	Clinical symptoms				Pathological type				
		Male	Female		Headache	Sensory disturbance	Epilepsy	Other symptoms	Endothelioma type	Hemangioma type	Fibroblast type	Hybrid	Sand type
Observation group (n=75)	33 (44.00)	42 (56.00)	68.46 ± 1.33	4.32± 0.31	18(24.00)	10 (13.33)	15(20.00)	6(8.00)	23 (30.67)	14(18.67)	17(22.67)	23 (30.67)	15 (20.00)
Control group (n=75)	37 (49.33)	38 (50.67)	68.51 ± 1.37	4.38± 0.35	19(25.33)	8(10.67)	18(24.00)	7(9.33)	26 (34.67)	17(22.67)	16(21.33)	27 (36.00)	11 (14.67)

1.2 治疗方法

观察组采取显微手术进行治疗，当肿瘤灶处于矢状窦后 1/3 位置处时需采取侧俯卧位,当肿瘤灶处于矢状窦前部、中部 1/3 位置处则需取仰卧位,用头架进行固定。按照术前影像学检查情况取马蹄形切口或 L 形切口，将头皮切开，翻起骨膜、皮瓣,钻孔取出骨瓣。在临近肿瘤边缘位置处将脑膜进行弧形剪开,将手术显微镜放置其中,借助显微镜作用先将靠近蒂部的肿瘤予处理掉,离断肿瘤血供。自瘤由内朝外将肿瘤进行分块切除,充分减压后朝内对瘤壁进行充分牵引,对瘤壁相连的蛛网膜予以分离,在分离中需保护好粗大引流静脉。若矢状窦依然保持通畅并且受累较轻仅需将窦外肿瘤切除。若并没有突入窦腔内、仅累及窦壁外层仅需烧灼上矢状窦侧壁肿瘤。若肿瘤已长入对侧窦壁,并且对窦腔造成完全阻塞,需将肿瘤彻底切除并结扎受累上矢状窦前后量端。对部分突入窦内或窦壁内外层造成侵入性影响,但窦腔依然通畅,需将受累的上矢状窦仅需结扎和切除。若是粘连难以分离的部位需残留。对照组采用常规开颅手术方式进行治疗，使用常规手术器械切除肿瘤即可,其手术原则和显微手术治疗一致。

1.3 观察指标

比较两组患者的手术指标(术中输血量、术中出血量)和临床疗效(症状改善、致残、死亡)。采取 Simpson 脑膜瘤切除分级标准[6]对两组患者肿瘤切除程度进行比较分析,对受累的静脉窦、颅骨、硬脑膜在内的组织已予以全部切除则为 I 级;只可使用电凝的方式烧灼受累的静脉窦、颅骨、硬脑膜,并且肿瘤病灶完全切除则为 II 级;对于受累的静脉窦、颅骨、硬脑膜难以处理，肿瘤病灶为肉眼切除则为 III 级；肿瘤病灶部分切除则为 IV 级;需进行肿瘤活检或开颅减压则为 V 级。

1.4 统计学分析

本次实验数据处理选择 spss11.5 软件包进行,计量资料用($\bar{x}\pm s$)来表示,采用 t 检验,计数资料用[例(%)]来表示,采取 x^2 检验,以 P<0.05 表明差异具有统计学意义。

2 结果

2.1 两组手术指标比较

观察组的术中输血量、出血量均显著少于对照组(P<0.05),但两组患者手术时间比较无显著性差异(P>0.05),见表 2。

表 2 两组手术指标比较($\bar{x}\pm s$)

Table 2 Comparison of the surgical index between the two groups($\bar{x}\pm s$)

Item	Observation group (n=75)	Control group (n=75)
Intraoperative blood transfusion(mL)	352.45± 10.32*	655.56± 12.44
Intraoperative blood loss(ml)	402.67± 11.45*	804.45± 14.24
Operation time(min)	154.23± 11.43	157.34± 11.49

Note: Compared with control group,*P<0.05.

2.2 两组手术切除率比较

观察组和对照组的手术切除程度比较无显著性差异(P>0.05),见表 3。

表 3 两组手术切除率比较[例(%)]

Table 3 Comparison of the surgical resection rate between two groups[n (%)]

Items	Observation group (n=75)	Control group (n=75)
Class I	46(61.33)*	42(56.00)
Class II	19(25.33)*	21(28.00)
Class III	8(10.67)*	9(12.00)
Class IV	2(2.67)*	3(4.00)
Class V	0(0.00)*	0(0.00)

Note: Compared with control group,*P<0.05.

2.3 两组手术效果比较

两组患者改善率、致残率及死亡率比较均无显著性差异

(P>0.05),见表 4。

表 4 两组手术效果的比较[例(%)]

Table 4 Comparison of the surgical effects between two groups[n(%)]

Items	Observation group (n=75)	Control group(n=75)
Improvement	60(80.00)	59(78.67)
Disability	13(17.33)	12(16.00)
Death	2(2.67)	4(5.33)

2.4 两组手术并发症发生情况比较

观察组总的并发症发生率显著低于对照组,差异具有统计学意义(P<0.05),见表 5。

表 5 两组手术并发症情况比较[例(%)]

Table 5 Comparison of the incidence of surgical complications between two groups[n(%)]

Items	Observation group (n=75)	Control group (n=75)
Muscle strength decreased	4(5.33)	8(10.67)
Seizures	1(1.33)	5(6.67)
Intracranial infection	0(0.00)	3(4.00)
Total complication	5(6.67)	16(21.33)

Note: Compared with control group,*P<0.05.

3 讨论

一旦确诊患者为矢状窦镰旁脑膜瘤，若无手术禁忌症,需采取手术治疗，然而这两个部位有着较为丰富的脑膜瘤血供,并且会对中央沟静脉、颅骨、矢状窦、大脑镰造成不同程度的累及,切除肿瘤存在一定难度和风险性[7,8]。矢状窦镰旁脑膜瘤患者在手术入路中应根据 MRI、CT 进行准确定位,按照患者肿瘤部位取出不同的皮肤切口和卧位[9]。对于前 1/3 者需采取发际内冠状皮瓣,在骨瓣过中线予以皮肤切口,对于中、后 1/3 需采取过中线 L 形切口,和马蹄形切口相比,其血运更为丰富,术后伤口愈合速度更快，其中和中药引流静脉存在密切关联性,即使静脉梗死范围较小也会导致神经系统严重受损,大大增加手术切除肿瘤的风险性和难度[9,10]。因此,在术中不但要将肿瘤病灶完全切除,还需处理好和血管以及重要脑功能区之间的关系。

在治疗矢状窦镰旁脑膜瘤中采取传统的开颅手术虽然可以很好的将肿瘤病灶切除,然而具有创伤大,术后并发症多等不足之处,往往不利于患者预后[11]。特别是对于老年患者而言,常常伴有糖尿病、高血压、冠心病等基础性疾病,在麻醉过程中极易发生心脑血管不良事件,即使在术后采取后续治疗也较为复杂,存在一定难度,并且术后有着较高的并发症风险性[12,13]。近年来,伴随着显微神经外科技术的不断发展与进步,其在治疗矢状窦镰旁脑膜瘤中采取显微手术方式得到不断深入与研究[14]。在显微手术技术中借助显微镜的照明和放大功能,再借助显微手术器械能顺利的对蛛网膜间歇、正常组织和肿瘤之间进行瘤体分离,能减少术中的出血量,却把术野清晰,能在一定程度上减少静脉窦、脑组织的受损程度,不但有利于临床疗效的提高,还能降低额外损伤的受损程度[15,16]。

采取显微手术治疗矢状窦镰旁脑膜瘤应按照术前影像学检查情况对手术切口进行设计,将肿瘤位置作为中心,骨窗稍大于肿瘤即可，在术前需对肿瘤病灶影像学资料进行仔细研究,确定中央沟静脉、中央沟和肿瘤之间的关系,在术中需将远离重要功能区的肿瘤部分予以切除掉,再将靠近功能区部分的肿瘤组织予以切除[17]。切除肿瘤过程中使用无张力法,尽可能避免脑组织,注意对中央沟静脉的保护。若中央沟静脉骑跨肿瘤浅表面,可将肿瘤组织进行分块切除,当降低中央沟静脉张力后再将剩余瘤体剥离掉，若患者肿瘤组织属于难以分离型,为防止出血现象的发生,可予以残留[18,19]。在处理受累上矢状窦中也是手术治疗的一大难点,主要是因为上矢状窦壁缺乏平滑肌组织,一旦发生出血难以有效控制,因此在处理过程中应加以注意。术后较为常见的并发症包括颅内感染、癫痫、肌力降低,术中需注意不必要损伤的发生,术后需注意继发颅内血肿、急性脑水肿的发生,需定期开展颅脑 CT,避免脑疝的发生以及颅内压升高[20]。本次研究结果显示相对于常规开颅手术,矢状窦镰旁脑膜瘤患者经显微镜手术治疗术中输血量和出血量更少,但两种手术方式的手术适应症、手术切除率、效果无明显差异性,但采取显微手术治疗的患者,其并发症发生率更低,有利于改善患者的预后。

总之，显微手术治疗矢状窦镰旁脑膜瘤患者术中输血量和出血量较少,手术效果良好,安全性高,有利于改善患者的预后。

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