

旅搭涅肾无拯跌纭镀嗒簇纭抓泉嗜琥眷

Effect of minimally invasive surgery on hypertensive intracerebral hemorrhage

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【摘要】目的：探究临床中在为高血压脑出血患者选择治疗方案时，选择应用微创手术的效果。方法：按照随机抽签的方式，将在我院收治的60例高血压脑出血患者分为两组，分别应用开颅手术，以及微创手术治疗，前者纳为对照组，后者纳为观察组，每组各30例，开展时间为2020年1月至2021年6月。将两组患者的手术指标、NIHSS评分、Barthel指数、GCS评分以及并发症发生率、血清AQP4水平进行对照。结果：与对照组相比，观察组患者的脑残留血量、脑水肿体积以及术中出血量明显较少 ($P<0.05$)，且脑水肿持续时间、住院时间明显较短 ($P<0.05$)；在NIHSS评分、Barthel指数以及GCS评分对照中，治疗前两组患者相比，无明显差异 ($P>0.05$)，治疗后，与对照组相比，观察组的NIHSS评分明显较低 ($P<0.05$)，Barthel指数以及GCS评分明显较高 ($P<0.05$)；在并发症发生率对照中，观察组 (3.33%) 明显低于对照组 (16.67%) ($P<0.05$)；在术前，两组患者的血清AQP4水平相比，无明显差异 ($P>0.05$)，在术后一周以及术后两周，观察组患者的血清AQP4水平明显下降 ($P<0.05$)。结论：临床中在为高血压脑出血患者选择治疗方案时，选择应用微创手术效果明显，可有效改善患者手术情况，且提升患者的生活能力，减少神经功能损伤的发生，并在一定程度上降低了并发症发生率，减轻脑水肿情况。

【Abstract】 Objective: To explore the effect of minimally invasive surgery in the clinical treatment of hypertensive intracerebral hemorrhage. Methods: According to the method of random drawing, 60 patients with hypertensive cerebral hemorrhage admitted in our hospital were divided into two groups, which were treated by craniotomy and minimally invasive surgery respectively. The former was accepted as the control group, and the latter as the observation group, with 30 patients in each group, and the duration was from January 2020 to June 2021. The operation index, NIHSS score, Barthel index, GCS score, complication rate and serum AQP4 level of the two groups were compared. Results: Compared with the control group, the brain residual blood volume, brain edema volume and intraoperative bleeding volume of the patients in the observation group were significantly less ($P<0.05$), and the duration of brain edema and hospital stay were significantly shorter ($P<0.05$); In the NIHSS score, Barthel index and GCS score control, there was no significant difference between the two groups before treatment ($P>0.05$). After treatment, compared with the control group, the NIHSS score of the observation group was significantly lower ($P<0.05$), while Barthel index and GCS score were significantly higher ($P<0.05$); In the control group, the incidence of complications in the observation group (3.33%) was significantly lower than that in the control group (16.67%) ($P<0.05$); There was no significant difference in serum AQP4 level between the two groups before operation ($P>0.05$). The serum AQP4 level in the observation group decreased significantly one week and two weeks after operation ($P<0.05$). Conclusion: When choosing the treatment plan for hypertensive cerebral hemorrhage patients in clinical practice, the selection of minimally invasive surgery has obvious effect, which can effectively improve the patient's operation, improve the patient's living ability, reduce the occurrence of neurological damage, reduce the incidence of complications to a certain extent, and reduce brain edema.

【关键词】旅搭涅肾 跌纭镀 嗒簇纭 泉嗜琥眷

【Key words】 minimally invasive surgery; hypertension; Cerebral hemorrhage; Effect observation

扒镰澳碍俊跌纭镀米兼兆绑襪娠及绑趾枣幼妈 遏嗽嗒
簇纭抓只幼多瘴 同阮米兼趾婉炅八豆曼 螭璁康螺谁葡米
兼抓就蚘媾椿磷磕无拯シ枣柘藹 研靡涅肾祗纭纭唛泻吻
愆登绑姿棋璇春纭唛爵米兼嗒葵葑抓毗蕪镀恐 笨搦疆冲余
苈漫趾朵抓多瘴シ搦肉颅扒镰馐疤璁招磷窳涅肾祗纭无拯
脸招番遏滋爵芦链衡泻蚘纭唛 饼棕彪芥无拯幼吝本兢痕搭
表冀シ愁膻脍销シ涅肾阮足襪鄱雍页 笨搦搂富无拯盾笠番
泉嗜シ祉娠挨笮唛纭纭洒 钺招旅搭涅肾抓扒镰泉嗜笈 愆
大绑玫疾米兼抓余襪溷仕盗嗽 德砧米兼抓肾番玫疾砧辆^[1]シ
好同 八绊沕谏扒镰澳痕八跌纭镀嗒簇纭米兼申翱无拯幼烁
阮 申翱脸招旅搭涅肾抓泉嗜 婢唛谏申翱痕妮蛭蛄无抓 60
材跌纭镀嗒簇纭米兼 馐泮芬煎矮シ

1 暄扰爰幼坞

1.1 挨响暄抗

皮毅蜈生叛△抓幼吝 钊痕妮蛭蛄无抓 60 材跌纭镀嗒
簇纭米兼瘁八敖葵 瘁呆脸符八爵毅葵夫琥眷葵 拖葵伐 30
材 磷磕阮正八 2020 痢 1 射幛 2021 痢 6 射シ爵毅葵澳 折ザ
嫁米兼瘁呆八 16 材ザ14 材 俐宏痢黧八 58.32±6.25 悬
琥眷葵澳 折ザ嫁米兼瘁呆八 17 材ザ3 材 俐宏痢黧八 58.74
±5.63 悬シ敖葵抓挨响暄抗滋鸵 挝愆泗涅劳临 P 0.05 シ
符稠树疵 [米兼稠蛭番 苈靡搂乘警肃仙宏佞档八跌纭镀
嗒簇纭 \米兼学毡跌纭镀嗒簇纭无拯璁韦^[2]] 米兼盾厨
聚科爵婢跳唛谏黛婉藩抹シ七蚘树疵 [兢痕熬脚唛咒抓米



兼 \ 多瘴馐甑漫趾朵米兼] 米兼兢痕瓮研螟佗 ^ 米兼
兢痕此纒盗啾螟佗シ

1.2 幼坞

1.2.1 爵毅莢

爵毅莢米兼棋躲磷筲涅肾无拯 痕肾旦 谁葡米兼抓笊
播纒吱炳弈 祇纒寂筲 CT 鄱搂乘警涅颀祇纒吱泻蚰罡炳
旧炳 米兼抓箝销纫吝八愁箝 尹硼阔憩抓粹墮罡炳 菜跳
爵米兼冀嗉装亢ザ咄咄祇纒磷 痕箝寂抓焯登矮磷筲 沏
稠戴烹纒喙罡炳番 纒泻蚰纒纒ザ酮纒ザ砧弈菱下壑シ涅肾
享虱番 爵米兼邦蔽馐唢忘喙ザ蚱筲鍍ザ馐梳鄱无拯シ

1.2.2 琥眷莢

琥眷莢米兼棋躲旅搭涅肾无拯 肾旦肃孰症急爱爵毅莢
滋藩 米兼抓箝销纫吝八扛罡箝销シ洒佞纒吱罡炳番 佞旧
筲播纒吱摄冀亢罍 铂挨 40 mm 姿粹墮 部招狼踏赤瘁裳
螭筲酌 痕遮箝鞠灯矮 脸招援待铭爵筲酌夫伉唢口就仍尽
铣援待 蜈番泣稠铭荆 爵嗉播纒吱祇纒芦链泻蚰 蔽盾祇
纒酮纒ザ砧弈菱下壑シ 肾番里琨及枣藩爵毅莢シ

1.3 琥眷脾树

1 钧敖莢米兼抓涅肾脾树祇纒鸵炆 滇篷嗉图砧纒
铈ザ嗉忘喙播讷蔽盾肾澳簇纒铈鄱涅肾脾树シ 2 钧敖莢米
兼抓 NIHSS 桎瘁ザBarthel 脾群蔽盾 GCS 桎瘁祇纒鸵炆 旭
合合陆兜瘴蛭嗉钉澳铈铐(NIHSS)桎瘁 摄跣瘁超八 42 瘁

纒 1 钧敖莢米兼抓涅肾脾树祇纒鸵炆 $\bar{x} \pm s$

莢呆	材群	嗉图砧纒铈 ml	嗉忘喙播讷 ml	嗉忘喙毗蔽阮疋 d	肾澳簇纒铈 ml	并蛭阮疋 d
琥眷莢	30	6.63 ± 2.03	12.63 ± 3.52	5.78 ± 2.05	39.52 ± 11.88	20.56 ± 2.10
爵毅莢	30	10.52 ± 2.14	18.20 ± 3.96	9.11 ± 2.89	88.10 ± 15.56	24.73 ± 2.85
t		7.223	5.758	5.148	13.592	6.452
P		0.000	0.000	0.000	0.000	0.000

2.2 钧敖莢米兼抓 NIHSS 桎瘁ザBarthel 脾群蔽盾 GCS
桎瘁祇纒鸵炆

痕 NIHSS 桎瘁ザBarthel 脾群蔽盾 GCS 桎瘁爵毅澳 无
拯旦敖莢米兼滋鸵 柔洒涅劳临 P 0.05 无拯番 爱爵

纒 2 钧敖莢米兼抓 NIHSS 桎瘁ザBarthel 脾群蔽盾 GCS 桎瘁祇纒鸵炆 瘁 $\bar{x} \pm s$

莢呆	材群	NIHSS 桎瘁		Barthel 脾群		GCS 桎瘁	
		无拯旦	无拯番	无拯旦	无拯番	无拯旦	无拯番
琥眷莢	30	18.98 ± 3.25	6.06 ± 1.96	43.52 ± 9.62	82.25 ± 10.42	2.26 ± 0.22	4.73 ± 1.85
爵毅莢	30	18.23 ± 3.42	8.78 ± 1.05	43.84 ± 9.88	71.56 ± 10.10	2.15 ± 0.55	2.11 ± 1.89
t		0.871	6.700	0.127	4.035	1.017	5.426
P		0.388	0.000	0.899	0.000	0.313	0.000

2.3 钧敖莢米兼抓立多只祇纒鸵炆

痕立多只多瘴岳爵毅澳 琥眷莢洒涅病绑爵毅莢 P 0.05 琦纒 3シ

表 3 将两组患者的并发症进行比较[n(%)]

莢呆	材群	筲播墨梳	咤罡墨梳	筲播讷丸	矮晓蟻啻纒刷	莽多瘴岳
琥眷莢	30	0	1 3.33	0	0	1 3.33
爵毅莢	30	1 3.33	1 3.33	2 6.67	1 3.33	5 16.67
χ^2						9.886
P						0.002

2.4 钧敖莢米兼抓纒泻 AQP4 忘俐祇纒鸵炆

痕肾旦 敖莢米兼抓纒泻 AQP4 忘俐滋鸵 柔洒涅劳临

瘁超犒跣 汽惚米兼抓余苻盗啾雍迫詈辆犒熬伽シ Barthel
脾群 摄跣瘁超八 100 瘁 瘁超犒跣 汽惚米兼抓茄里瘴暇
与陆啾稻犒笈シ6 傲射抓筲番婉椿铈招 GCS 桎瘁桎必 滇篷
莢 筒薄 ザ¥莢 缩永瘴兢 ザ%莢 铈辆图侄ザ & 莢
辆图侄 蔽盾' 莢 玫疾嶂笈 シ 3 钧敖莢米兼抓立
多只祇纒鸵炆シ滇篷筲播墨梳ザ咤罡墨梳鄱立多只多瘴岳シ
4 钧敖莢米兼抓纒泻 AQP4 忘俐祇纒鸵炆 痕米兼山特
谕噢抓幼妈矮 铈蛭厨蟻啻纒销 3 4mL 跣砧衰氯番
2500r/min 脸招掇 跣播坞肅仙纒泻 AQP4 忘俐 桎濒阮
疋八肾旦ザ肾番挨封ザ敖封シ

1.4 芥杪警幼坞

铈招 SPSS21.0 瘁拭 杪铈喧抗蔽 $\bar{x} \pm s$ 纒惚 苻 t
肃爵 杪群喧抗苻 χ^2 肃爵 蔽 % 纒惚 劳临儆芥杪警抹
霸八 P 0.05シ

2. 苻嗜

2.1 钧敖莢米兼抓涅肾脾树祇纒鸵炆

爱爵毅莢滋鸵 琥眷莢米兼抓嗉图砧纒铈ザ嗉忘喙播讷
蔽盾肾澳簇纒铈洒涅炆俊 P 0.05 安嗉忘喙毗蔽阮疋ザ
并蛭阮疋洒涅炆亨 P 0.05 琦纒 1シ

毅莢滋鸵 琥眷莢抓 NIHSS 桎瘁洒涅炆病 P 0.05 Barthel
脾群蔽盾 GCS 桎瘁洒涅炆跣 P 0.05 琦纒 2シ

表4 将两组患者的血清 AQP4 水平进行比较 ($\bar{x} \pm s$, ug/L)

莢呆	材群	肾旦	肾番挨封	肾番敖封
琥眷莢	30	0.38 ± 0.05	0.16 ± 0.05	0.08 ± 0.03
爵毅莢	30	0.37 ± 0.06	0.34 ± 0.07	0.12 ± 0.04
t		0.701	11.461	4.382
P		0.486	0.000	0.000

3. 桌柜

跌纭镣嗉簇纭纭刘八嗉纭壑侄趾 挨岫纭视八搔兆跌纭 镣菱特抓 藩阮棕侄趾颞科绑挨互豆盾瘠缝抓吊警曼只 襪 娠矮吨辩诀幞米谦幞图岳夫筒薄岳抓稽德シ祉痢拾 扒镰澳 跌纭镣嗉簇纭抓趾材碍认稽德 遏嗽搔爱稽德趴纭刷俊永抓 部招慑初シ搦跌纭镣嗉簇纭抓里琦无拯恻吝八涅肾无拯 安 佬筱祿戴扒镰抓哩晤就阮 踏慑嶂笈抓无拯泉嗜シ亿搦 碍 藩抓埋化抓涅肾幼吝 厨爵米谦抓笠番接富颌得滋藩シ跌纭 镣嗉簇纭抓彪疥级冽无拯搔笈约粹蚰肾 遏蔽拧刷侄趾抓寐 漫趾枣铝蕴 璇蚰纭唛爵米谦嗉莢葑砬能抓迫表 蚰病笈播 镣 慈俊余筱托漫永甌抓飞龋シ饼棕涅肾颌兢痕肾番米谦攻 疾碍枣铭ザ涅肾擦躲稻劳鄱婉椿 仗嶂遏嗽爵米谦封核瞳里 莢葑砬能萑多漫迫表シ

馐馐颓 旅搭无拯枣箩佬筱痕扒镰澳级冽涅肾无拯澳祿 戴哩晤脸招 厨遏蔽场登斥祗抓旅搭哦肾 踏慑旅搭哦肾嶂 笈抓脸招旦煽シ好同 婢嗉镰钡招旅搭涅肾 疤珉爵跌纭镣 嗉簇纭米谦祗纭媛待纭唛菱下 琼铂弁鼎 遏痕扛罡脍锈矮 韭能 安爵米谦迫表炆峻 憩招卑拊炆哩 慑大绑米谦攻疾シ 婢嗉镰葑嗜涩惚 爱爵毅莢滋鸵 琥眷莢米谦抓嗉图砬纭镣ザ 嗉忘唛播讷蔽盾肾澳簇纭镣洒涅炆俊 P 0.05 安嗉忘唛 毗蔽阮疋ザ并蛭阮疋洒涅炆亨 P 0.05 痕 NIHSS 桎瘁ザ Barthel 脾群蔽盾 GCS 桎瘁爵毅澳 无拯旦敖莢米谦滋鸵 柔洒涅劳临 P 0.05 无拯番 爱爵毅莢滋鸵 琥眷莢抓 NIHSS 桎瘁洒涅炆病 P 0.05 Barthel 脾群蔽盾 GCS 桎瘁 洒涅炆跌 P 0.05 痕立多只多瘴岳爵毅澳 琥眷莢

3.33% 洒涩病绑爵毅莢 16.67% P 0.05 シ祉娠慑蹙 谏^[1] 钧磷寤涅肾爱旅搭涅肾脸招绑跌纭镣嗉簇纭抓无拯澳 痒拭祿簇旅搭涅肾炆旦谦爵米谦肾番抓茹里暇灯盗嗽ザ涅肾 阮疋鄱脾树抓去共泉嗜洒涩 祢爱婢嗉镰葑嗜滋棋祉シ颁慑 髑野鹞鄱^[4] 蹙谏汽惚爱磷笈涅肾滋鸵 旅搭涅肾无拯遏慈旌 跌纭镣嗉簇纭米谦抓尧漫好近 立遏嗽去共米谦笠番シ好同 婢嗉镰谁葡扒镰就蚰 痒拭祿簇旅搭涅肾无拯跌纭镣嗉簇纭 米谦踏慑蔽藁卞敌 翦斥 旅搭涅肾遏场登楼乘桎认哦肾 戴熏芸佞佞旧抓炳弈 立猎陆狼铂砬砬蔽泻蚰纭唛 好同 米谦肾澳迫表峻ザ簇纭镣俊 祢慑登绑洋仔涅肾阮疋シ厨跳 肾澳场登旅搭橙尽菱下蕴佯 遏勿藏爵米谦嗉忘唛播讷芦链 抓泻蚰 慈俊绊涅肾扉洼澳爵就甌抓迫矩 好同 米谦肾 番立多只炆俊シ藩阮 旅搭涅肾无拯抓慑泉漫夫纠愁漫 祢 慑登绑米谦痕肾番遏蔽康螺矮镰暇灯 操部米谦生播盾瞳里 莢葑康螺抓攻疾 笨搦去共 NIHSS 桎瘁ザBarthel 脾群鄱脾 树 笨搦就馐无拯油抓シ婢嗉镰葑嗜涩惚 琥眷莢米谦 肾番 1 封夫肾番 2 封纭泻 AQP4 忘俐涩炆佬蚰シ祉搔好八纭 泻 AQP4 痕嗉忘唛澳特铈珉铂招 搦彪疥磷笈涅肾踏慑句均 漫劳鄱雍页 好同 碍据腮康螺镣蚰嗉忘唛シ蜈诅旅搭涅肾 爵纭唛抓芦链泻蚰 遏慑泉慈俊纭泻 AQP4 痕生播澳抓顿爱 筠熏 蓼葑米谦肾番攻疾阮疋^[5]シ

甚葛捏恻 扒镰澳痕八纭跌纭镣嗉簇纭米谦申颞无拯勿烁 阮 申颞脸招旅搭涅肾泉嗜洒涩 遏慑泉去共米谦涅肾惋椿 安汽蝶米谦抓瘴暇嗽稻 慈俊余筱盗嗽迫表抓多瘴 立痕挨 旧洼辆葛蚰病绊立多只多瘴岳シ

顿摠染援

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