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大隐静脉高位结扎联合点式剥脱术对大隐静脉曲张患者术后复发和应激反应的影响 *

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摘要 目的:探讨大隐静脉高位结扎联合点式剥脱术治疗大隐静脉曲张的临床疗效,并探讨其对患者术后复发和应激反应的影响。**方法:**选取 2014 年 9 月~2017 年 6 月期间我院收治的大隐静脉曲张患者 200 例,按随机数字表法分为对照组(100 例)和研究组(100 例),其中对照组给予大隐静脉高位结扎联合传统剥脱术治疗,研究组给予大隐静脉高位结扎联合点式剥脱术治疗。比较两组术后 4 周的临床疗效,记录并比较两组患者手术时间、住院时间、下床活动时间、术中出血量,比较两组术前、术后 3 d 应激反应指标变化,观察两组并发症及复发情况。**结果:**研究组术后 4 周临床总有效率为 97.00%,高于对照组的 76.00%($P<0.05$)。研究组患者手术时间、住院时间、下床活动时间均较对照组短,术中出血量较对照组少($P<0.05$)。两组患者术后 3 d 白介素-6(IL-6)、肿瘤坏死因子- α (TNF- α)、一氧化氮(NO)水平均较术前升高,但研究组低于对照组($P<0.05$)。研究组术后并发症总发生率、复发率低于对照组($P<0.05$)。**结论:**大隐静脉高位结扎联合点式剥脱术治疗大隐静脉曲张疗效确切,可促进患者的恢复,降低患者的复发率,机体应激反应较小,且安全性较好,具有一定的临床应用价值。

关键词:点式剥脱术;大隐静脉高位结扎;疗效;大隐静脉曲张;复发;应激反应

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Effect of High Ligation of Great Saphenous Vein Combined with Point Stripping on Recurrence and Stress Response of Patients with Great Saphenous Varicose Vein after Operation*

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ABSTRACT Objective: To explore the clinical effect of high ligation of great saphenous vein combined with point stripping in the treatment of varicose great saphenous vein, and to explore its influence on the recurrence and stress response of patients after operation. **Methods:** A total of 200 patients with varicose great saphenous vein, who were admitted to the First Affiliated Hospital of Xinjiang Medical University from September 2014 to June 2017, were selected and were randomly divided into control group (100 cases) and study group (100 cases). The control group was treated with high ligation of great saphenous vein combined with traditional stripping. The study group was treated with high ligation of great saphenous vein combined with point stripping. The clinical efficacy of the two groups was compared 4 weeks after operation. The operation time, hospitalization time, time to get out of bed and amount of bleeding during the operation were recorded and compared between the two groups. The changes of stress response indexes before operation and 3 days after operation were compared between the two groups. Complications and recurrence were observed in the two groups. **Results:** The total effective rate of the study group was 97.00% 4 weeks after operation, which was significantly higher than that(76.00%) of the control group ($P<0.05$). The operation time, hospitalization time and out of bed activity time in the study group were shorter than those in the control group, and the amount of bleeding during the operation was less than that in the control group($P<0.05$). The levels of interleukin-6 (IL-6), tumor necrosis factor- α (TNF- α) and nitric oxide (NO) in the two groups increased 3 days after operation, but the above indexes in the study group were lower than those in the control group ($P<0.05$). The total incidence and recurrence rate of complications in the study group were lower than those in the control group ($P<0.05$). **Conclusion:** High ligation of great saphenous vein combined with point stripping is effective in the treatment of varicose great saphenous vein. It can promote the recovery of patients, reduce the recurrence rate of patients, with small stress response of the body, good safety, and certain clinical application value.

Key words: Point stripping; High ligation of great saphenous vein; Curative effect; Varicose great saphenous vein; Recurrence; Stress response

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前言

大隐静脉曲张是临床常见病及多发病,主要是由于长时间的站立导致静脉曲张、血液回流不畅引起瘀滞,临床主要表现为色素沉着、局部皮肤瘙痒、血栓等,严重者甚至会导致软组织坏死、溃疡以及截肢^[1-3]。据相关报道统计^[4],我国成年群体中,约20%~25%的女性以及10%~15%的男性伴有不同程度的大隐静脉曲张,给我国人民的健康安全带来严重威胁。目前临床治疗该病的主要方法为手术治疗,传统的高位结扎剥脱术虽可获得一定的治疗效果,但随着人们对手术要求的提升,该手术时间长、创伤大、术后恢复慢、瘢痕多等缺点越发明显,其已越来越不被患者所接受^[5-7]。高位结扎点式剥脱术作为一种微创术式,其逐渐被应用于临床治疗^[8,9],但目前临床有关高位结扎联合点式剥脱术能否取代传统的高位结扎剥脱术上存在一定争议。鉴于此,本研究通过探讨大隐静脉高位结扎联合点式剥脱术治疗大隐静脉曲张的疗效及对患者术后复发和应激反应的影响,以期临床术式的选择提供数据支持。

1 资料与方法

1.1 一般资料

选取2014年9月~2017年6月期间我院收治的大隐静脉曲张患者200例,纳入标准:(1)均符合《慢性下肢静脉疾病诊断与治疗中国专家共识》^[10]中的相关诊断标准;(2)经彩色多普勒超声以及下肢静脉顺行造影检查确诊;(3)均具有明确的手术指征;(4)患者及家属知情本研究,签订同意书。排除标准:(1)伴有凝血功能不全者;(2)合并严重心肝肾等脏器功能不全者;(3)患者患肢静脉检查不通畅者;(4)临床资料不全者;(5)伴有精神疾病无法配合本次研究者。采用随机数字表法将入选患者分为对照组($n=100$)和研究组($n=100$),其中对照组男58例,女42例;年龄40~68岁,平均 (51.46 ± 3.21) 岁;病程2~7年,平均 (4.19 ± 0.44) 年;患肢部位:左侧43例,右侧57例;静脉分类系统分级:C2 28例,C3 23例,C4 26例,C5 23例。研究组男62例,女38例;年龄39~69岁,平均 (52.09 ± 4.38) 岁;病程2~6年,平均 (4.06 ± 0.55) 年;患肢部位:左侧45例,右侧55例;静脉分类系统分级:C2 31例,C3 25例,C4 24例,C5 20例。两组患者一般资料比较无差异($P>0.05$)。

1.2 治疗方法

1.2.1 对照组 行大隐静脉高位结扎结合传统剥脱术治疗,操作如下:术前采用标记笔标记曲张静脉走行,同时使用碘酊固定,术中患者取仰卧位,全麻,常规消毒,于患侧腹股沟动脉内侧处作一切口,长约3~5 cm,分离大隐静脉主干,将所属分支切

断,在距股静脉0.5 cm处将近端结扎,在内踝前1.5 cm处作一横切口分离大隐静脉主干远端,切断并进行结扎,于内踝远端向近端置入静脉剥脱器,沿标记方向直至腹股沟,将两断端与静脉区牢固结扎,随后缓慢抽剥,并同时使用弹力绷带自下肢远心端至近心端加压包扎止血。

1.2.2 研究组 给予大隐静脉高位结扎联合点式剥脱术治疗,具体如下:术前准备、麻醉、大隐静脉高位结扎法均同对照组。在此基础上,联合点式剥脱术治疗,于标记处作若干个小切口,约0.5~1.0 cm,切开后采用蚊式血管钳分离大隐曲张静脉,随后提出、剥脱全部曲张静脉。

1.2.3 术后处理 两组手术结束后采用低分子肝素防止术后深静脉血栓发生,并抬高患者患肢,引导患者行跖趾运动,待患者下床活动后,视患者具体情况调整弹力绷带,术后14 d行切口拆线,穿弹力袜维持2~4周。

1.3 观察指标

1.3.1 临床疗效 两组术后4周的临床疗效^[11]:足靴区溃疡痊愈,下肢曲张静脉消失记为痊愈;足靴区溃疡面缩小 $>30\%$ 且无渗出,下肢曲张静脉基本消失记为改善;足靴区溃疡未改变,下肢曲张静脉未消失记为无效;总有效率=痊愈率+改善率。

1.3.2 临床指标 记录两组患者手术时间、住院时间以及下床活动时间、术中出血量。

1.3.3 并发症、复发率 记录两组术后并发症发生情况,包括局部血肿瘀斑、切口感染、隐神经损伤、深静脉血栓形成等;同时采用电话询问或门诊复查等方式随访1年,观察患者复发情况。

1.3.4 应激反应 采集患者清晨空腹静脉血5 mL(采血时间:术前、术后3 d),以2800 r/min的速率离心10 min,离心半径8 cm,取上清液,置于 -30°C 冰箱中待测。采用酶联免疫吸附法检测白介素-6(Interleukin-6, IL-6)、肿瘤坏死因子- α (Tumor necrosis factor- α , TNF- α)水平,采用放射免疫法检测一氧化氮(Nitric oxide, NO)水平,试剂盒均购自南京建成生物科技有限公司,以上操作严格按照试剂盒说明书进行。

1.4 统计学方法

应用SPSS 23.0统计软件分析数据,其中计数资料采用率的形式表示,进行卡方检验;计量资料经检验均符合正态分布,采用均值 $\pm$ 标准差表示,进行t检验,检验水准设置为 $\alpha=0.05$ 。

2 结果

2.1 两组临床疗效比较

研究组术后4周临床总有效率为97.00%(97/100),高于对照组的76.00%(76/100)($P<0.05$),详见表1。

表1 两组临床疗效比较[n(%)]

Table 1 Comparison of clinical efficacy between two groups [n(%)]

Groups	Recovery	Improve	Invalid	Total effective rate
Control group($n=100$)	62(62.00)	14(14.00)	24(24.00)	76(76.00)
Study group($n=100$)	87(87.00)	10(10.00)	3(3.00)	97(97.00)
χ^2				18.882
P				0.000

2.2 两组临床指标比较

组短,术中出血量较对照组少($P<0.05$),详见表 2。

研究组患者手术时间、住院时间、下床活动时间均较对照

表 2 两组临床指标比较($\bar{x} \pm s$)

Table 2 Comparison of clinical indicators between two groups($\bar{x} \pm s$)

Groups	Operative time(min)	Amount of bleeding during the operation (mL)	Hospitalization time(d)	Out of bed activity time(h)
Control group(n=100)	63.23± 8.78	41.71± 4.75	9.63± 0.93	25.54± 3.85
Study group(n=100)	41.77± 5.67	11.63± 1.78	6.54± 0.88	21.48± 4.91
<i>t</i>	20.533	59.299	24.134	6.507
<i>P</i>	0.000	0.000	0.000	0.000

2.3 两组应激反应比较

($P>0.05$),两组患者术后 3 d IL-6、TNF- α 、NO 水平均较术前升

高,但研究组低于对照组($P<0.05$),详见表 3。

表 3 两组应激反应比较($\bar{x} \pm s$)

Table 3 Comparison of stress response between two groups($\bar{x} \pm s$)

Groups	IL-6(ng/L)		TNF- α (μ g/L)		NO(μ mol/L)	
	Before operation	3 d after operation	Before operation	3 d after operation	Before operation	3 d after operation
Control group(n=100)	15.36± 2.84	29.54± 4.85*	1.35± 0.23	1.96± 0.50*	67.23± 8.92	118.84± 9.96*
Study group(n=100)	15.35± 2.65	21.78± 4.52*	1.39± 0.25	1.71± 0.35*	67.12± 7.24	88.53± 8.95*
<i>t</i>	0.026	11.705	1.177	4.096	0.096	22.636
<i>P</i>	0.979	0.000	0.240	0.000	0.924	0.000

Note: Compared with before operation, * $P<0.05$.

2.4 两组术后并发症、复发情况比较

详见表 4。

研究组术后并发症总发生率、复发率低于对照组($P<0.05$),

表 4 两组术后并发症、复发情况比较[n(%)]

Table 4 Comparison of postoperative complications and recurrences between two groups [n(%)]

Groups	Local hematoma ecchymosis	Incisional infection	Complication Saphenous nerve injury	Deep venous thrombosis	Total incidence rate	Recurrences rate
Control group(n=100)	7(7.00)	3(3.00)	7(7.00)	1(1.00)	18(18.00)	15(15.00)
Study group(n=100)	3(3.00)	1(1.00)	2(2.00)	1(2.00)	7(7.00)	4(4.00)
χ^2					5.531	7.037
<i>P</i>					0.019	0.008

3 讨论

大隐静脉曲张是原发性下肢静脉曲张的主要类型,主要是由血液流速减缓、血液凝固性增加以及血管内膜损伤等原因引起^[12-14]。临床治疗大隐静脉曲张的主要手术方法有大隐静脉高位结扎术、高位结扎联合传统剥脱术以及高位结扎联合点式剥脱术等,其中大隐静脉高位结扎术由于术后患者经常复发,因此目前已不再采用此种方法进行治疗^[15,16]。大隐静脉高位结扎联合传统剥脱术虽可获得一定的治疗效果,但赵正东等^[17]学者研究表明,大隐静脉高位结扎联合传统剥脱术对患肢损伤较大,手术时间长,不利于术后恢复。随着微创技术的发展,大隐静脉高位结扎联合点式剥脱术逐渐被应用于临床^[18-20],但其应用效果还有待进一步验证,本研究就此展开探讨。

本次研究结果表明,研究组术后总有效率高于对照组,提示大隐静脉高位结扎联合点式剥脱术治疗大隐静脉曲张可进

一步提高治疗效果,这与蔡爱民等人^[21]研究结果基本一致。究其原因点式剥脱术切口小,可将曲张静脉剥脱干净,有效消除静脉内瘀滞血液,促进患者康复,因此临床治愈率高。本研究结果显示,研究组患者手术时间、住院时间、下床活动时间均较对照组短,术中出血量较对照组少,表明大隐静脉高位结扎联合点式剥脱术可有效改善患者各项临床指标。点式剥脱术作为微创手术,手术操作简便,因此其手术时间较短;同时,其切口小且分散,使得术中出血量有效减少,加之该术式腹股沟切口采用可吸收线缝合,术后恢复快,从而有效缩短了患者下床活动时间以及住院时间^[22,23]。本研究结果还显示,两组患者术后 3d IL-6、TNF- α 、NO 水平均较术前升高,但研究组低于对照组。IL-6 可调节免疫应答、参与免疫反应^[24],NO 则可反映血管内皮功能状态^[25],TNF- α 是具有多种生物学效应的炎症细胞因子^[26],IL-6、TNF- α 、NO 均是反映机体应激反应严重程度的重要指标。本研究结果提示两种术式均会引起不同程度的应激反应,

但高位结扎联合点式剥脱术所引起的应激反应明显更轻,这可能是因为高位结扎联合点式剥脱术切口较小且少,对周围软组织损伤也较小,从而对机体造成的刺激性损伤相对较小^[27,28]。另外,本研究结果显示,研究组术后并发症总发生率、复发率低于对照组,提示大隐静脉高位结扎联合点式剥脱术安全性以及预后较好。值得注意的是,实施点式剥脱术治疗时,术前应注意认真做好曲张静脉标记以防止曲张静脉残留、复发,其次点式剥脱时用力须均匀,应保持尽可能通过一个切口抽剥出尽可能多的静脉^[29,30]。

综上所述,大隐静脉高位结扎联合点式剥脱术治疗大隐静脉曲张疗效确切,可有效改善患者临床指标,且对患者刺激性较小,同时其可有效减少并发症的发生,患者预后较好,具有一定的临床应用价值。

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