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改良曲张静脉点式剥除术治疗中老年下肢静脉曲张的临床疗效*

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摘要 目的:探究改良曲张静脉点式剥除术在治疗中老年下肢静脉曲张的临床疗效。**方法:**收集我院已确诊为下肢静脉曲张的中老年患者 37 例,分成实验组与对照组。对照组 18 例行传统曲张静脉点式剥除术,实验组 19 例行改良曲张静脉点式剥除术。对比两组患者手术后的下肢静脉曲张的治疗效果。**结果:**实验组有效率(94.7%)显著高于对照组(72.2%),差异具有统计学意义($P<0.05$);与对照组相比,实验组患者手术时间较短、术中出血量较少、下床活动时间较早,术后并发症总治愈率较高,复发率、术后并发症发生率较低,其差异均有统计学意义($P<0.05$)。**结论:**采用改良曲张静脉点式剥除术治疗中老年下肢静脉曲张的患者能够更彻底的剥除曲张额静脉,有效的改善患肢症状,明显降低复发率。

关键词: 下肢静脉曲张;中老年患者;改良曲张静脉剥除术

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A Study on the Clinical Effect of Modified Varicose Vein Stripping on the Middle Aged and Elderly Patients with Lower Extremity Varicose Veins*

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ABSTRACT Objective: To investigate the clinical effect of modified varicose vein stripping on middle aged and elderly patients with lower extremity varicose veins. **Methods:** 37 middle aged and elderly patients with lower extremity varicose veins from our hospital were selected and randomly divided into the control group and the experimental group. 18 cases in the control group were treated by conventional varicose vein stripping. 19 cases in the experiment group were treated by modified varicose vein stripping. The therapeutic effect of varicose veins of lower extremity was compared between two groups. **Results:** The effective rate of experimental group (94.7%) was significantly higher than that of the control group (72.2%)($P<0.05$). Compared with the control group, the operation time was shorter, the amount of bleeding during operation was less, and the time of getting out of bed was earlier, the total cure rate of complication was higher, the recurrence rate and incidence rate of postoperative complications were lower ($P<0.05$). **Conclusion:** In elderly patients with varicose vein of lower extremity patients by modified varicose vein stripping could more thoroughly strip amounts of varicose vein, effectively improve the suffering from limb symptoms, reduce the relapse rate.

Key words: Lower extremity varicose vein; Middle aged and elderly patients; Modified varicose vein stripping

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前言

下肢静脉曲张多发生在久站及从事体力劳动的人群中,主要是因为下肢浅静脉中股隐静脉瓣膜的关闭不全而导致的血流返流,造成下肢静脉的压力增加而使静脉迂曲扩张^[1]。下肢静脉曲张的发病初期患者多感到肢体有沉重感,易乏力且在久站后下肢的酸胀不适加重,抬高肢体时症状可以得到缓解^[2]。病变逐渐进展后会导致下肢静脉管壁的受损,出现隆起、扩张,可在小腿内侧的大隐静脉走行区见到明显的蚯蚓样行走的静脉,甚至出现皮肤处的营养性改变及伴血管走行的疼痛及下肢浅静脉的血栓等症状^[3]。中老年人因皮下组织疏松、静脉瓣膜功能的减退等原因而更易发病^[4]。据报道^[5,6],约有 10%的男性和 20%

的女性会出现有症状的大隐静脉曲张表现,我国约有逾 2 亿人患有下肢静脉曲张,临床上通常采用大隐静脉高位结扎剥脱术进行治疗,但传统术式拥有较高的复发率。改良曲张静脉点式剥除术通过对传统手术方式进行改进,同时对小腿及大隐静脉处进行剥除及高位结扎,来彻底剥除大隐静脉,达到治疗的目的^[7]。本研究主要探讨了改良曲张静脉点式剥除术在治疗中老年下肢静脉曲张方面的应用效果及安全性。

1 资料与方法

1.1 病历选择

选择我院自 2014 年 12 月至 2015 年 12 月所收治的中老年下肢静脉曲张患者 37 例,分为实验组和对照组。对照组 18

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例,其中男性 11 例,女性 7 例,年龄 46~79 岁,平均(58.9± 6.4)岁,并发溃疡 9 例、湿疹皮炎 9 例;实验组 19 例,其中男性 10 例,女性 9 例,年龄 47~78 岁,平均(59.1± 6.3)岁,并发溃疡 9 例、湿疹皮炎 10 例。两组患者的性别、年龄等比较,差异不具有统计学意义($P>0.05$)。患者符合《外科学》中对下肢静脉曲张的诊断;经彩色超声或下肢的深静脉造影检查显示:患者的下肢深静脉回流通畅,交通静脉瓣膜功能不全;45~80 岁间的患者。排除体格检查 Perthes 试验阳性的患者;孕妇或处于哺乳期的妇女;有严重心脑血管疾病的患者;存在严重肝肾功能损害的患者。此次试验已获得本院伦理委员会的批准,患者已签署知情同意书。

1.2 治疗方法

嘱两组患者清淡饮食,忌食辛辣刺激食物,戒烟,减轻劳动程度避免久站,注意防寒保暖。术前均予禁食、补液等治疗,在站立位时用记号笔标记出静脉曲张的部位,注意避免遗漏,后在全身麻醉下仰卧位进行手术。对照组予曲张静脉点式剥除术治疗。在患者患肢耻骨结节外下 2~5 cm 处做高位结扎的手术切口,纵向切口 2 cm,切开皮下浅筋膜,找到患者的大隐静脉主干将其分离并在靠近卵圆窝处将大隐静脉及其属支切断,同时对 5 个小分支进行结扎。从静脉切断处逆行剥脱器插入直至到内踝上方,把大隐静脉的主干段分段剥除,用刀片将小腿处的标记部位行切口,将病变的静脉抽出,当静脉剥除出现障碍可行多个连续切口,并将静脉依次抽出,注意保持静脉的完整性,病变处出现色素沉着患者要将其交通支彻底结扎。手术结束后使用弹力绷带对患者腿部行加压包扎;实验组患者予改良曲张静脉点式剥除术治疗。找到患者股动脉的搏动处后在其内 3 cm 的地方做切口,露出股静脉与大隐静脉的交界处,并将大隐静脉及其属支结扎切断,采用激光闭塞方法对静脉主干进行腔内治疗,从患者的内踝部位向上顺入 0.035' 导丝,后置入型号 5F 的导管,将导丝抽出连接光纤及激光治疗系统,透过皮肤可见红色的光标,将导管抽出 1 cm 后设置激光系统的参数是 12W 的功率间隔 1 s 释放 1 s 脉冲,在发射激光的同时按每

秒 5 mm 的速度撤出导管,嘱助手依照激光所示的路径进行按压,以达到促使静脉闭合完成治疗的目的。然后从患者的足背处开始使用驱血带向患者的大腿中下 1/3 处进行驱血,用宽止血带进行抽紧止血,去除小腿处的驱血带,在患者内踝的前方 2 cm 左右行手术切口并结扎大隐静脉远端属支、离断,使用小型剥除器置入并与大腿处的剥除器在膝下 10 cm 处汇合,此时沿着术前做好的标记处做多个小切口,使用小弯血管钳将静脉抽出,注意保持静脉的完整。采用同样的方法将出现溃疡部位周围的静脉抽掉,注意不要遗留。手术结束后使用弹力绷带对患者腿部进行加压包扎,从足背部一直到大腿中部。两组患者均在手术结束后抬高患肢,严密观察患肢的血运情况以评价两组治疗方法的临床效果。在手术后 12 小时内可以适当下床活动,在 3 周内保持弹力绷带的包扎,之后可以改穿弹力袜。

1.3 临床疗效评价

根据患者术后康复情况分为显效、有效和无效三个等级。显效:患肢的静脉迂曲、扩张等情况消失或明显减轻,色素沉着等并发症明显好转,没有出现深静脉血栓等并发症;有效:患肢静脉的迂曲、扩张情况减轻,色素沉着等症状好转,未出现深静脉血栓等并发症;无效:患肢静脉的迂曲、扩张情况未见减轻,色素沉着等症状仍存在,发生深静脉血栓等并发症。总有效率=(显效例数+有效例数)/总病例数×100%。

1.4 统计学分析

采用统计学软件 SPSS 17.0 对术中及术后的数据进行分析,以 " $\bar{x} \pm s$ " 来表示计量数据,选用 t 检验,计数资料用率记录,采用卡方检验,当 $P<0.05$ 时,则认为其差异具有统计学意义。

2 结果

2.1 两组临床疗效比较

实验组有效率(94.7%)高于对照组(72.2%),差异存在统计学意义($P<0.05$)。见表 1。

表 1 两组患者治疗后临床疗效的比较好例【n(%)】

Table 1 Comparison of the clinical curative effect between two groups after treatment [n(%)]

Groups	Case	Excellence	Effective	Invalid	Clinical effect rate
Control group	18	7(38.9)	6(33.3)	5(27.8)	13(72.2)
Experimental group	19	11(57.9)	7(36.8)	1(5.3)	18(94.7)*

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

2.2 两组患者术中情况的对比

与对照组相比,实验组患者的手术时间较短、术中出血量

较少、下床活动时间较早,经比较其差异有统计学意义($P<0.05$)。见表 2。

表 2 两组患者手术情况对比($\bar{x} \pm s$)

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

Groups	Case	Blood loss (mL)	Operation time (min)	Postoperative activity (h)
Control group	18	49.6± 6.13	55.6± 5.9	10.1± 1.2
Experimental group	19	9.9± 4.5*	46.6± 5.8*	6.5± 0.8*

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

2.3 两组患者并发症发生率、治愈率及复发率比较

与对照组相比较,实验组患者的并发症总治愈率较高、复

发率较低、术后的并发症发生率较低,组间数据差异存在统计学意义($P<0.05$)。见表 3。

表 3 两组患者并发症发生率、治愈率及复发率比较($\bar{x} \pm s$)Table 3 Comparison of the incidence rate, cure rate and recurrence rate of complications between two groups ($\bar{x} \pm s$)

Groups	Case	Cure rate of complication		Total complication rate	Recurrence rate	Postoperative complication rate
		Ulcer	Eczema dermatitis			
Control group	18	6(33.3)	5(27.8)	11(61.1)	5(27.8)	3(16.7)
Experimental group	19	7(36.8)	10(52.6)	18(94.7)*	1(5.3)*	0(0.00)*

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

3 讨论

下肢静脉曲张是因下肢表浅静脉功能障碍而发生的疾病,在临床上较为常见,多数患者可合并有交通静脉功能的障碍,静脉曲张的发生会造成患肢的功能障碍或静脉返流^[8]。静脉曲张的发生主要是因患肢处的浅静脉压力增高,静脉瓣缺陷而导致。从事体力劳动或久站的人群,因血流久滞引起下肢静脉的压力明显增高导致患肢静脉回流受阻^[9]。发生静脉曲张后,患者会感到有明显的肢体沉重感、乏力等,尤其在站立后症状更加明显。早期时可通过穿压力袜等非手术治疗方式治疗^[10]。而中老年患者,因其皮下组织更为疏松缺少足够的肌肉支持,或因静脉瓣功能的退化及深静脉外的病变,从而使脉压增高,下肢静脉回流受阻而发生下肢静脉曲张,为患肢做检查时多能在小腿内侧看到迂曲的团块,常能延伸至踝外侧及足背部^[11,12]。静脉曲张发生时患肢常伴有并发症的发生,色素沉着是由于浅静脉的扩张而造成的皮肤营养性的变化,在小腿踝部处的皮肤常呈现出褐色素的沉着斑,因营养性的改变会造成湿疹或溃疡的发生^[13]。体格检查可判断出患者的静脉瓣膜功能及下肢深静脉的回流,根据超声或静脉造影等检查能够准确的判断病变部位从而进行手术取出病变静脉^[14]。

临床上常采用大隐静脉高位结扎术或静脉曲张点式剥除术来治疗,传统的剥除术对小腿处的曲张静脉团不能顺利插入剥除器进行剥脱,不仅不能广泛消除曲张的静脉、术后复发高,还会留下多个切口瘢痕影响美观^[15,16]。改良曲张静脉点式剥除术与传统的手术方式相比较,手术时间较短,术后的并发症发生率低^[17]。通过汇合置于大腿和小腿处的剥除器,可以对大隐静脉主干进行完整的分段剥除,达到彻底有效的剥除患肢大隐静脉的目的,减少复发率,小腿处的静脉剥除通过多个微创切口,使用小弯血管钳将静脉从切口处剥除,还能够减少切口数量,提高剥除效率^[18]。

中老年患者的血流较为粘稠且缓慢,术后极易并发深静脉血栓等症状,因此在术后应嘱患者尽早开始锻炼患肢,适当调整弹力绷带的松紧度,以防止腓总神经的损伤^[19,20]。本试验中实验组患者的有效率为(94.7%)高于对照组(72.2%),说明改良曲张静脉点式剥除术能够更彻底准确的剥除曲张静脉。与对照组比较,实验组手术时间较短、术中的出血量较少、下床活动时间较早,提示改良术式造成患者的肢体损伤更小,更易于患者的康复与患肢的功能恢复。并且实验组患者的并发症总治愈率较高证明了病变部位的营养性改变已有好转,复发率仅 5.3%提示已基本消除了曲张静脉的复发可能,术后并发症发生率低进一步说明改良术式在剥除病变血管时更为彻底。

综上,对静脉曲张的中老年患者,改良曲张静脉点式剥除

术能够减少术中出血量、手术时间缩短。患者可以更早的恢复活动,且能够更彻底的剥除曲张的静脉,改善静脉曲张引起的并发症,显著降低复发率。

参考文献(References)

- [1] Pan Y, Zhao J, Mei J, et al. Comparison of endovenous laser ablation and high ligation and stripping for varicose vein treatment: a meta-analysis[J]. Phlebology, 2014, 29(2): 109-119
- [2] Eberhardt R T, Raffetto J D. Chronic venous insufficiency [J]. Circulation, 2014, 130(4): 333-346
- [3] Zerweck C, von Hodenberg E, Knittel M, et al. Endovenous laser ablation of varicose perforating veins with the 1470-nm diode laser using the radial fibre slim[J]. Phlebology, 2014, 29(1): 30-36
- [4] Brittenden J, Cotton S C, Elders A, et al. A randomized trial comparing treatments for varicose veins [J]. New England Journal of Medicine, 2014, 371(13): 1218-1227
- [5] Carroll C, Hummel S, Leaviss J, et al. Systematic review, network meta analysis and exploratory cost effectiveness model of randomized trials of minimally invasive techniques versus surgery for varicose veins[J]. British Journal of Surgery, 2014, 101(9): 1040- 1052
- [6] Robertson L A, Evans C J, Lee A J, et al. Incidence and risk factors for venous reflux in the general population: Edinburgh Vein Study [J]. European Journal of Vascular and Endovascular Surgery, 2014, 48(2): 208-214
- [7] Proebstle T M, Alm B J, Göckeritz O, et al. Five year results from the prospective European multicentre cohort study on radiofrequency segmental thermal ablation for incompetent great saphenous veins[J]. British Journal of Surgery, 2015, 102(3): 212-218
- [8] Darvall K A L, Bate G R, Bradbury A W. Patient reported outcomes 5-8 years after ultrasound guided foam sclerotherapy for varicose veins[J]. British Journal of Surgery, 2014, 101(9): 1098-1104
- [9] Frappé P, Buchmuller Cordier A, Bertoletti L, et al. Annual diagnosis rate of superficial vein thrombosis of the lower limbs: the STEPH community based study [J]. Journal of Thrombosis and Haemostasis, 2014, 12(6): 831-838
- [10] Lattimer C R, Kalodiki E, Azzam M, et al. The Aberdeen varicose vein questionnaire may be the preferred method of rationing patients for varicose vein surgery[J]. Angiology, 2014, 65(3): 205-209
- [11] Pfisterer L, König G, Hecker M, et al. Pathogenesis of varicose veins-lessons from biomechanics[J]. Vasa, 2014, 43(2): 88-99
- [12] Amato B, Coretti G, Compagna R, et al. Role of matrix metalloproteinases in non healing venous ulcers [J]. International wound journal, 2015, 12(6): 641-645
- [13] Bishawi M, Bernstein R, Boter M, et al. Mechanochemical ablation in patients with chronic venous disease: a prospective multicenter report [J]. Phlebology, 2014, 29(6): 397-400

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- clinical case report [J]. *European heart journal*, 2015, 36 (30): 2011-2017
- [3] McMurray J J V, Packer M, Desai A S, et al. Angiotensin-neprilysin inhibition versus enalapril in heart failure[J]. *New England Journal of Medicine*, 2014, 371(11): 993-1004
- [4] Pitt B, Pfeffer M A, Assmann S F, et al. Spironolactone for heart failure with preserved ejection fraction [J]. *New England Journal of Medicine*, 2014, 370(15): 1383-1392
- [5] Packer M, McMurray J J V, Desai A S, et al. Angiotensin receptor neprilysin inhibition compared with enalapril on the risk of clinical progression in surviving patients with heart failure [J]. *Circulation*, 2015, 131(1): 54-61
- [6] Damman K, Valente M A E, Voors A A, et al. Renal impairment, worsening renal function, and outcome in patients with heart failure: an updated meta-analysis [J]. *European heart journal*, 2014, 35 (7): 455-469
- [7] Ambrosy A P, Fonarow G C, Butler J, et al. The global health and economic burden of hospitalizations for heart failure: lessons learned from hospitalized heart failure registries [J]. *Journal of the American College of Cardiology*, 2014, 63(12): 1123-1133
- [8] Goel S S, Bajaj N, Aggarwal B, et al. Prevalence and outcomes of unoperated patients with severe symptomatic mitral regurgitation and heart failure: comprehensive analysis to determine the potential role of MitraClip for this unmet need [J]. *Journal of the American College of Cardiology*, 2014, 63(2): 185-186
- [9] Borer J S, Böhm M, Ford I, et al. Efficacy and safety of ivabradine in patients with severe chronic systolic heart failure (from the SHIFT study)[J]. *The American journal of cardiology*, 2014, 113(3): 497-503
- [10] Takeda K, Naka Y, Yang J A, et al. Outcome of unplanned right ventricular assist device support for severe right heart failure after implantable left ventricular assist device insertion [J]. *The Journal of Heart and Lung Transplantation*, 2014, 33(2): 141-148
- [11] Braunwald E. The war against heart failure: the Lancet lecture[J]. *The Lancet*, 2015, 385(9970): 812-824
- [12] Mortensen S A, Rosenfeldt F, Kumar A, et al. The effect of coenzyme Q10 on morbidity and mortality in chronic heart failure: results from Q-SYMBIO: a randomized double-blind trial[J]. *JACC: Heart Failure*, 2014, 2(6): 641-649
- [13] Mathiasen A B, Qayyum A A, Jørgensen E, et al. Bone marrow-derived mesenchymal stromal cell treatment in patients with severe ischaemic heart failure: a randomized placebo-controlled trial (MSC-HF trial)[J]. *European heart journal*, 2015, 36(27): 1744-1753
- [14] Gronda E, Seravalle G, Brambilla G, et al. Chronic baroreflex activation effects on sympathetic nerve traffic, baroreflex function, and cardiac haemodynamics in heart failure: a proof of concept study [J]. *European journal of heart failure*, 2014, 16(9): 977-983
- [15] Florea V G, Cohn J N. The autonomic nervous system and heart failure[J]. *Circulation research*, 2014, 114(11): 1815-1826
- [16] Asbury A K, Aldredge H, Hershberg R, et al. Oculomotor palsy in diabetes mellitus: a clinico-pathological study [J]. *Brain*, 2016, 93(3): 555-566
- [17] Greenberg B, Yaroshinsky A, Zsebo K M, et al. Design of a phase 2b trial of intracoronary administration of AAV1/SERCA2a in patients with advanced heart failure: the CUPID 2 trial (calcium up-regulation by percutaneous administration of gene therapy in cardiac disease phase 2b)[J]. *JACC: Heart Failure*, 2014, 2(1): 84-92
- [18] Melenovsky V, Hwang S J, Lin G, et al. Right heart dysfunction in heart failure with preserved ejection fraction [J]. *European heart journal*, 2014, 35(48): 3452-3462
- [19] Pfeffer M A, Claggett B, Assmann S F, et al. Regional variation in patients and outcomes in the Treatment of Preserved Cardiac Function Heart Failure With an Aldosterone Antagonist (TOPCAT) trial[J]. *Circulation*, 2015, 131(1): 34-42
- [20] Mc Murray J V, Packer M, Desai A S, et al. Baseline characteristics and treatment of patients in Prospective comparison of ARNI with ACEI to Determine Impact on Global Mortality and morbidity in Heart Failure trial (PARADIGM HF)[J]. *European journal of heart failure*, 2014, 16(7): 817-825

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- [14] Eid R E, Wang L, Kuzman M, et al. Endoscopic versus open saphenous vein graft harvest for lower extremity bypass in critical limb ischemia[J]. *Journal of vascular surgery*, 2014, 59(1): 136-144
- [15] Scotton M F, Miot H A, Abbade L P F. Factors that influence healing of chronic venous leg ulcers: a retrospective cohort [J]. *Anais brasileiros de dermatologia*, 2014, 89(3): 414-422
- [16] Stroud W, Whitworth J M, Miklik M, et al. Validation of a venous thromboembolism risk assessment model in gynecologic oncology[J]. *Gynecologic oncology*, 2014, 134(1): 160-163
- [17] Van den Bos R R, Malskat W S J, De Maeseneer M G R, et al. Randomized clinical trial of endovenous laser ablation versus steam ablation (LAST trial) for great saphenous varicose veins [J]. *British Journal of Surgery*, 2014, 101(9): 1077-1083
- [18] Lynch N P, Clarke M, Fulton G J. Surgical management of great saphenous vein varicose veins: A meta-analysis[J]. *Vascular*, 2015, 23 (3): 285-296
- [19] Liu Z, Gao N, Shen L, et al. Endovascular treatment for symptomatic iliac vein compression syndrome: a prospective consecutive series of 48 patients[J]. *Annals of vascular surgery*, 2014, 28(3): 695-704
- [20] Poredos P, Spirkoska A, Rucigaj T, et al. Do blood constituents in varicose veins differ from the systemic blood constituents? [J]. *European Journal of Vascular and Endovascular Surgery*, 2015, 50(2): 250-256