[参 考 文 献]

[1] Leung TK, Lee CM, Tai CJ, et al. A retrospective study on the long-term placement of peripherally inserted central catheters and the importance of nursing care and education [J]. Cancer Nurs, 2011, 34: E25-E30.

[2] Yue ZY, Li JY, Yu CH, et al. Complications with peripherally inserted central catheters- observations and nursing experiences at one medical center in Chengdu[J]. Hu Li Za Zhi, 2010, 57: 79-85.

[3] Haider G, Kumar S, Salam B, et al. Determination of complication rate of PICC lines in oncological patients[J]. J Pak Med Assoc, 2009, 59: 663-667.

[4] Kim HJ, Yun J, Kim HJ, et al. Safety and effectiveness of central venous catheterization in patients with cancer: prospective observational study [J]. J Korean Med Sci, 2010, 25: 1748-1753.

[5] Burns KE, Mclaren A. Catheter-related right atrial thrombus and pulmonary embolism: a case report and systematic review of the literature[J]. Can Respir J, 2009, 16: 163-165.

[6] Kalra VK, Arora P, Lua J. Spontaneous fracture and migration of distal segment of a peripherally inserted central venous catheter to heart in a neonate [J]. J Vasc Access, 2012, 13: 403.

[7] Talwar V, Pavithran K, Vaid AK, et al. Spontaneous fracture and pulmonary embolization of a central venous catheter [J]. J Vasc Access, 2003, 4: 158-159.

[8] Chow LM, Friedman JN, Macarthur C, et al. Peripherally inserted central catheter (PICC) fracture and embolization in the pediatric population[J]. J Pediatr, 2003, 142: 141-144.

[9] 王卫东, 陆　进, 徐　平, 等. 医源性静脉血管内异物五例的微创清除[J]. 介入放射学杂志, 2011, 20: 479-481.

[10] Yap YS, Karapetis C, Lerose S, et al. Reducing the risk of peripherally inserted central catheter line complications in the oncology setting[J]. Eur J Cancer Care (Engl), 2006, 15: 342-347.

[11] 李锦康, 钱晋卿, 华仰德. 心血管腔内取出异物六例报道[J]. 介入放射学杂志, 2001, 10: 105-106.

(收稿日期:2012-12-08)
(本文编辑:俞瑞纲)

·临床研究　Clinical research·

部分脾动脉栓塞联合内镜下硬化治疗重度食管静脉曲张的疗效观察

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【摘要】　目的　探讨部分脾动脉栓塞(PSE)联合内镜下硬化剂(EIS)注射治疗严重食管静脉曲张的疗效。**方法**　2009 年 6 月至 2011 年 2 月收治伴有重度食管静脉曲张的肝硬化患者 68 例,随机分为 PSE 联合 EIS 治疗组(联合治疗组)32 例和单纯 EIS 治疗组 36 例。联合治疗组先行脾动脉栓塞,然后常规胃镜下曲张静脉注射 1%乙氧硬化醇硬化治疗;EIS 组 36 例单纯给予 1%乙氧硬化醇硬化治疗。所有患者在 12 个月内进行胃镜检查,观察完成曲张静脉系统根除治疗后所需硬化治疗次数、硬化剂用量。**结果**　患者完成曲张静脉根除治疗所需平均治疗次数联合治疗组为 1.5 次,EIS 组为 2.7 次;完成治疗所需总的硬化剂量在联合治疗组平均为 38 ml,EIS 组为 94 ml。两者差异有统计学意义(P 值分别 < 0.01 和 < 0.05)。**结论**　PSE 联合 EIS 治疗重度食管静脉曲张患者具有明显优势。

【关键词】　食管静脉曲张; 部分脾动脉栓塞术; 内镜下硬化剂注射
中图分类号:R571.3　**文献标志码**:A　**文章编号**:1008-794X(2013)-06-0504-04

Partial splenic embolization combined with endoscopic sclerotherapy for severe esophageal varicosity

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【Abstract】　Objective　To evaluate the

DOI:10.3969/j.issn.1008-794X.2013.06.016
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therapeutic efficacy of partial splenic embolization (PSE) combined with endoscopic sclerotherapy (EIS) in treating severe esophageal varicosity. **Methods** During the period from June 2009 to Feb. 2011, a total of 68 patients with severe esophageal varicosis cause by cirrhosis were admitted to authors' hospital. The patients were randomly divided into group A (combination treatment group, $n = 32$) and group B (simple EIS group, $n = 36$). Patients in group A received PSE together with EIS, while patients in group B received EIS only. For patients in group A PSE was first carried out, which was followed by EIS (injection of 1% lauromacrogol), while for patients in group B only EIS was employed. Gastric endoscopy was performed in all patients within 12 months after the treatment. The times of endoscopic sclerotherapy needed for a radical cure of varicosis and the total amount of sclerosis agent used in procedures were recorded. The results were analyzed. **Results** To obtain a radical cure of varicosis the mean times of endoscopic sclerotherapy for patients of group A and group B were 1.5 and 2.7 respectively. The total amount of sclerosis agent used for patients of group A and group B were 38 ml and 94 ml respectively. **Conclusion** In treating severe esophageal varicosis cause by cirrhosis, PSE combined with EIS is obviously superior to simple EIS. (J Intervent Radiol, 2013, 22: 504-507)

【**Key words**】 esophageal varicosity; partial splenic embolization; endoscopic sclerotherapy

食管、胃底静脉曲张及脾功能亢进是肝硬化患者的常见并发症,如何有效地治疗这类患者,延长其生存时间成为当前肝硬化治疗的难点及重点。本文报道部分脾动脉栓塞(PSE)联合内镜下硬化剂注射(EIS)治疗肝硬化伴重度食管静脉曲张、脾功能亢进患者的疗效。

1 材料与方法

1.1 临床资料

2009 年 6 月至 2011 年 2 月收治肝硬化伴食管静脉重度曲张、脾功能亢进患者 68 例,男 59 例,女 9 例;年龄 26 ~ 68 岁,平均 42 岁。按治疗方法不同将患者随机分成 PSE 联合 EIS 治疗组 (联合治疗组)32 例和单纯 EIS 组 36 例。入组患者内镜下均可见重度食管静脉曲张: 胃镜下静脉曲张呈串珠状、结节状或瘤样,直径 1 ~ 4 cm,位置较高,到达食管上段;活动性出血或出血风险较高,Rf 为 1 ~ 2(Rf1 为红色征 + 或门静脉楔压 > 12 mmHg, 无糜烂、血栓、活动性出血;Rf2 为无糜烂、血栓、活动性出血,但可见到新鲜血液并能排除非静脉曲张出血原因)。

1.2 方法

1.2.1 PSE 治疗 采用 Seldinger 技术经股动脉穿刺插管成功后, 置入 5 F 动脉鞘管, 再经导丝引入 5 F-RH 导管,插至脾动脉主干,造影行数字减影检查,了解脾脏大小及血管分布情况,将 700 ~ 900 μm 栓塞微粒球混合庆大霉素 16 万 u 后经导管注入,再次造影,了解栓塞面积,必要时加用明胶海绵进行栓塞,尽量使栓塞面积达 75% ~ 80%[1]。术后常规营养支持、对症及预防感染治疗。通常术后 2 周后再行 EIS。

1.2.2 EIS 治疗 采用一次性注射治疗针, 胃镜插入后首先吸净胃内容物及残留胃液, 检查胃腔,了解胃内静脉曲张情况,确定静脉曲张主要以食管静脉为主后, 退胃镜至食管贲门结合部上方约 1 cm 左右开始,选择粗大静脉进行穿刺,采取静脉内注射方式每点注射 1%乙氧硬化醇(聚桂醇)5 ~ 10 ml,每次硬化剂用量为 10 ~ 50 ml, 一般不超过 40 ml。治疗后需禁食 12 h,加用质子泵抑制剂。间隔 1 周复查胃镜,进行第 2 次 EIS 治疗,直至静脉曲张全部消失。

1.3 疗效评估

比较两组患者完成全部治疗所需 EIS 次数、硬化剂总量及术后 12 个月随访所见静脉曲张程度。

1.4 统计学方法

两组计数资料用卡方检验, 计量资料应用 t 检验。$P < 0.05$ 为差异有统计学意义。

2 结果

两组患者食管静脉曲张均消除,闭塞曲张静脉所需 EIS 平均次数在联合治疗组为 1.5 次/例,EIS 组为 2.7 次/例; 平均硬化剂总量在联合治疗组为 38 ml/例,EIS 组为 94 ml/例。联合治疗组无术中出血,EIS 组 5 例术中出血(表 1,表 2)。联合治疗组术后食管糜烂、溃疡、狭窄、吞咽困难、胸骨后疼痛、胸腔积液等并发症为 0 例 (0%),EIS 组为 8 例(22.22%)。随访 12 个月中,联合治疗组静脉曲张再发 3 例(9.37%),EIS 组 12 例(33.33%);联合治疗组无一例出现红色征,EIS 组 2 例;联合治疗组未见再

出血发生,EIS 组中有 4 例出现再出血(表 2)。联合治疗组闭塞曲张静脉所需硬化治疗次数、硬化剂总量、硬化治疗术后并发症较少,静脉曲张复发率较低。见图 1。

表 1　治疗前及治疗后 2 周联合治疗组血常规及食管静脉曲张程度比较　(n = 32)

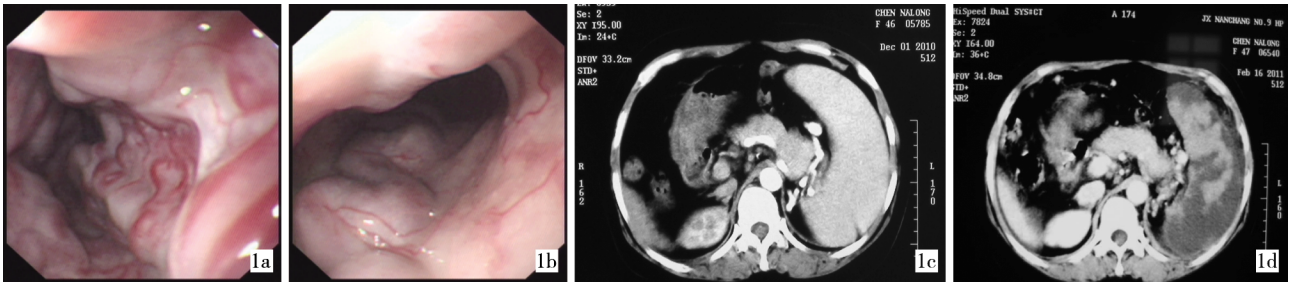
时间	血常规		食管静脉曲张程度/例			
	白细胞($\times10^9$/L)	血小板($\times10^{12}$/L)	重度	中度	轻度	红色征
PSE 前	2.13 ± 0.39	43.73 ± 7.65	32	0	0	10
PSE 后 2 周	6.58 ± 0.82[a]	130.40 ± 19.62[a]	9	20	3	6

注:与 PSE 前相比 [a]P < 0.01

表 2　两组静脉曲张闭塞所需 EIS 次数、硬化剂量及术后 12 个月静脉曲张程度比较　(例)

组别	硬化治疗次数				硬化剂总量(ml)	术后 12 个月食管静脉曲张程度			
	1 次	2 次	3 次	3 次以上		重	中	轻	红色征
联合治疗组(32 例)	17[a]	13[a]	2[a]	0[a]	38[a]	0[b]	1[b]	2[b]	0[b]
EIS 组(36 例)	0	18	14	4	94	1	4	7	2

注:与 EIS 组相比 [a]P < 0.01,[b]P < 0.05



1a　PSE 术前食管静脉重度曲张　**1b**　PSE 术后 1 周患者食管静脉曲张程度改善　**1c**　PSE 术前脾脏所见　**1d**　PSE 术后脾脏所见

图 1　PSE 术前及术后食管静脉曲张程度及脾脏影像学改变

3　讨论

食管静脉曲张、脾功能亢进是肝硬化患者的常见并发症,传统以外科脾脏切除术联合断流术治疗为主,但脾切除术后机体免疫功能下降,可能出现严重感染,此外,外科手术并发症多、手术风险大,尤其对高龄、肝脏功能较差、凝血机制严重障碍的患者。EIS 治疗能明显降低再出血和病死率,成为治疗及预防食管静脉曲张出血的最有效的一线治疗手段,现已被推荐为治疗及预防食管静脉曲张出血的首选标准疗法[2]。但单纯 EIS 治疗极重度食管静脉曲张患者风险大,近期复发率较高,特别是对于食管静脉曲张位置高、直径较大的患者,治疗中及治疗后出现急性出血或异位硬化剂栓塞的风险很大,另外 EIS 治疗,并不能降低门静脉压力,食管静脉曲张近期复发率较高。

PSE 是利用介入放射学技术将栓塞材料注入脾动脉分支使部分脾实质梗死机化,被认为是替代外科脾切除术的安全有效方法[3-4]。正常脾静脉血流量只占门静脉血流量的 20%左右,门脉高压时这一比率可高达 70%以上[5]。PSE 时,当栓塞体积达 50% ~ 60%,可减少脾静脉血流量,明显降低门静脉压力[6],改善脾脏功能亢进,提升血小板水平,改善凝血功能。基于上述认识,我们对食管静脉重度曲张患者,先进行 PSE,待脾脏功能亢进改善,门静脉压力下降后,再进行 EIS 治疗,PSE 手术 2 周后患者外周血白细胞及血小板均升至正常范围,结果与诸多文献报道相一致[7-9]。本研究结果显示与未行 PSE 者相比,不论是完成 EIS 治疗的次数,还是硬化剂的用量均明显减少,而且并发症、复发率更低。采用 PSE 联合 EIS 在治疗重度食管静脉曲张方面较单纯 EIS 有明显优势,为今后治疗重度食管静脉曲张提供了重要的方法。

[参 考 文 献]

[1] Hamed RK 2nd, Thompson HR, Kumpe DA, et al. Partial splenic embolization in five children with hypersplenism: effects of reduced-volume embolization on efficacy and morbidity[J]. Radiology, 1998, 209: 803-806.

[2] 中华医学会消化内镜学分会食管胃静脉曲张学组. 消化道静脉曲张及出血的内镜诊断和治疗规范试行方案 (2009 年)[J]. 中华消化内镜杂志, 2010, 27: 1-4.

[3] Vecchio R, Cacciola E, Cacciola RR, et al. Portal vein thrombosis after laparoscopic and open splenectomy [J]. J Laparoendosc Adv Surg Tech A, 2011, 21: 71-75.

[4] 周瑶军, 刘长江, 王要军. 部分脾栓塞术临床应用进展[J]. 介入放射学杂志, 2012, 21: 437-440.

[5] 徐家华, 李茂全. 部分脾动脉栓塞术治疗肝炎肝硬化脾功能亢

进[J]. 介入放射学杂志, 2009, 18: 155 - 158.
[6] Lay CS, Tsai YT, Teg CY, et al. Endoscopic variceal ligation in prophylaxis of first variceal bleeding in cirrhotic patients with high-risk esophageal varices[J]. Hepatology, 1997, 25: 1346 - 1350.
[7] 张孟增, 刘沧君, 路福志, 等. 部分性脾动脉栓塞治疗脾功能亢进[J]. 中国介入影像与治疗学, 2005, 2: 190 - 192.
[8] 曾庆乐, 李彦豪, 陈 勇, 等. 使用 PVA 微粒为栓塞剂的部分性脾栓塞术[J]. 临床放射学杂志, 2003, 22: 698 - 700.
[9] 李瑞雄, 王 俊. 部分性脾动脉栓塞联合内镜下套扎治疗肝硬化食管静脉曲张破裂出血的临床分析[J]. 影像诊断与介入放射学, 2010, 19: 226 - 228.

(收稿日期:2012-11-28)
(本文编辑:侯虹鲁)

·临床研究 Clinical research·

暂时性覆膜支架治疗贲门失弛缓症 47 例回顾性分析

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【摘要】 目的 通过观察贲门失弛缓症患者行食管腔内金属支架置入术前、术后临床症状缓解率,支架回收后患者进食状态的变化、并发症的发生,评估暂时性覆膜支架治疗贲门失弛缓症的临床疗效,探讨其可行性和疗效。**方法** 47 例贲门失弛缓患者,经食管钡餐造影确诊。支架选用国产暂时性覆膜支架,常规方法置入,置入 2 ~ 3 周后取出支架,复查食管钡餐。**结果** 支架均一次性置入成功,47 例患者术后吞咽困难均有不同程度缓解,由术前的Ⅰ ~ Ⅲ级得以改善,其中 39 例改善为 0 级,8 例改善为Ⅰ级;支架置入后钡餐造影示食管直径均达到 11 mm 左右。**结论** 暂时性覆膜支架治疗贲门失弛缓症是一种安全、有效、简单易行、症状即刻缓解、费用相对低廉的微创的治疗方法。

【关键词】 贲门失弛缓症; 暂时性; 覆膜支架; 食管
中图分类号:R573.7 **文献标志码**:B **文章编号**:1008-794X(2013)-06-0507-04

The implantation of temporary covered-stent for the treatment of achalasia of cardia: a retrospective analysis *ZHU Shou-yan, ZENG Jun-ren, XU Song, GAN Jin-quan, YUAN Shou-hong, LI Hui-yin, XIANG Shu-tian. Department of Radiology, No.4 Affiliated Hospital, Kunming Medical University, Kunming, Yunnan Province 650021, China*

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【Abstract】 Objective To assess the clinical efficacy of temporary covered-stent implantation for the treatment of achalasia of cardia by observing the clinical remission rate, the relief on taking food after retrieval of the stent, and the occurrence of complications, and to discuss the feasibility, safety and indications of temporary covered-stent implantation. **Methods** A total of 47 patients with achalasia were enrolled in this study. The diagnosis was confirmed by esophageal barium meal in all patients. Domestic temporary covered-stent was adopted, which was placed in the esophagus by using conventional technique. The stent was retrieved 2 or 3 weeks after implantation, and check-up examination with esophageal barium meal was performed to assess the clinical effectiveness. **Results** The stent was successfully placed in the esophagus with single procedure in all patients. After the implantation of the stent different degrees of improvement in dysphagia were obtained in all the 47 patients. The severity of dysphagia was reduced from preoperative Ⅰ - Ⅲ grade to postoperative 0 - Ⅰ grade, including 39 cases of grade 0 and 8 cases of grade Ⅰ. Postoperative esophageal barium meal examination showed that the diameter of the esophagus was up to 11 mm or so. **Conclusion** For the treatment of achalasia of cardia, the implantation of temporary covered-stent is safe, effective, minimally-invasive and technically-simple. The symptoms of dysphagia can be relieved instantly, and the patient needs not to stay in hospital,

DOI:10.3969/j.issn.1008-794X.2013.06.017
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