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肝硬化患者术后感染的危险因素及干预措施*

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摘要 目的:感染是肝硬化患者肝移植术后常见的并发症之一,影响患者的治疗效果和生存质量。本文针对肝硬化患者术后感染的危险因素进行分析,探讨有效的干预措施以提高临床疗效,为肝硬化术后并发症的预防提供可借鉴的方法。**方法:**对 2008 年 10 月-2013 年 9 月在我院接受手术治疗的 120 例肝硬化患者的临床资料进行回顾性分析。根据术后并发症的发生情况选择其中 60 例发生感染的患者作为感染组,另外 60 例未发生感染的患者作为对照组。观察两组患者的年龄、肝硬化分期及用药情况等,对比不同的干预措施产生的临床效果。**结果:**感染组患者的平均年龄、肝功能障碍、抗生素使用量及术前合并感染的比率均显著高于正常对照组,差异具有统计学意义($P<0.05$)。两组患者进行针对性的护理干预均获得良好的治疗效果,未发生死亡病例。**结论:**患者的年龄、肝功能分级、用药及合并症等均为肝硬化术后感染的危险因素,临床中应实施针对性的干预措施以提高疗效。

关键词:肝硬化;术后感染;危险因素;干预措施

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Analysis of Risk Factors and Interventions on the Infection of Patients with Liver Cirrhosis*

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ABSTRACT Objective: Infection is a common complication brought by the liver transplantation which has the side effects on the recovery and life quality of patients with liver cirrhosis. This article aims to analyze the risk factors and interventions on the infection of patients with liver cirrhosis so as to make a reference for clinical prevention of the complications after liver transplantation. **Methods:** A retrospective analysis was performed about the clinical data of 120 patients with liver cirrhosis who were taken the operation of liver transplantation in our hospital from October 2008 to September 2013. According to the incidence of complications, sixty patients with infection were defined as the study group, while the others were the control group. Then the general data, the liver function and the medication of patients were observed, and the clinical effects of patients with different interventions were compared and analyzed between two groups. **Results:** The average age, the preoperative liver function, the medication and the rate of other infections of patients in the study group were higher than those of the control group with statistically significant differences ($P<0.05$). The patients in the two groups have got better clinical efficacy by the proper interventions with no death. **Conclusions:** It is suggested that the risk factors of the postoperative infection in patients with cirrhosis might be the age, the hepatosis, the unreasonable medication and other complications. Therefore, a targeted intervention should be applied to improving the clinical effects and the life quality of patients.

Key words: Hepatic cirrhosis; Postoperative infection; Risk factors; Intervention

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前言

肝硬化(hepatic cirrhosis)是临床常见的肝脏系统慢性疾病,是由多种病因长期或反复作用而形成的弥漫性肝损害。肝硬化的病理表现为大量肝细胞坏死,残存肝细胞呈结节性再生,结缔组织增生形成纤维隔,肝小叶结构受到破坏而形成假小叶,肝脏逐渐发生变形、变硬^[1-3]。肝硬化早期的肝脏代偿功能较强

无明显症状,后期以肝功能损害和门脉高压为主要表现,并累及身体其他系统,晚期常出现上消化道出血、肝性脑病、继发感染、脾功能亢进、腹水等并发症^[4,5]。目前,肝移植(Liver transplantation)被认为是治疗晚期肝病的最佳手段,但术后并发症的发生率较高,其中最常见的是感染。据报道,肝移植术后患者发生细菌感染的几率高达 30-50%,严重影响患者的生存周期和生活质量^[6,9]。因此,有效的术前预防及术后干预是提供肝硬

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化患者临床效果的关键^[9-11]。本文对我院 2008 年 10 月 -2013 年 9 月收治的 120 例肝硬化移植患者的临床资料进行分析,探讨肝硬化患者术后感染的危险因素及有效的干预措施,旨在为临床护理提供可借鉴的方法。

1 资料与方法

1.1 一般资料

选取 2008 年 10 月 -2013 年 9 月我院收治的 120 例行肝移植手术的肝硬化患者的临床资料进行分析。依据术后发生感染的情况将所选病例分为两组,即感染组 and 对照组,每组各 60 人。对照组包括男性 41 例,女性 19 例;感染组包括男性 40 例,女性 20 例。两组患者的年龄无明显差异,具有可比性 ($P > 0.05$)。均排除严重心脑血管疾病、肾功能障碍、精神疾病及严重药物过敏史等。

1.2 干预方法

针对患者感染情况进行干预,具体方法为^[12-15]:①术前评估:检查患者身体各项指标、乙肝感染情况、呼吸系统疾病、及肝肾功能等,分析术后发生感染的危险因素,做好预防措施。②术后干预:术后严密观察并详细记录患者各项生命体征,若发现异常应及时处理。存在肠道感染的患者应及时给予肠道清理或灌肠治疗;不能自主咳嗽的患者应及时采取吸痰或雾化吸入治疗;心肺存在损伤的患者应重点保护其呼吸粘膜。对合并乙

型病毒感染的患者进行抗 HBV 治疗。定期检查患者的各种分泌物和体液,对感染进行菌落培养,依据结果给予抗生素治疗,注意防止耐药性产生。定期消毒患者的病床、周围环境及治疗器械等,防止交叉感染。③饮食干预:术后饮食应以高营养、高纤维为主,增强患者的机体营养,提高抵抗力,多食水果蔬菜,防止便秘。

1.3 统计学处理

选用 SPSS11.0 统计软件进行分析,计数资料采用 χ^2 检验,计量资料用($\bar{x} \pm S$)表示,数据采用 t 检验,以 $P < 0.05$ 为差异具有统计学意义。

2 结果

术后实施的干预方法效果显著,无死亡病例。感染组患者平均年龄为 62.50 ± 5.50 ,对照组为 41.50 ± 2.50 ,感染组明显高于对照组 ($P < 0.05$)。手术前,感染组检出 35 例肝功能障碍;29 例应用过量免疫抑制剂;50 例使用过量抗生素;31 例合并乙型病毒感染;21 例使用呼吸机;23 例并发呼吸系统感染;19 例伴有肠道感染。对照组检出 20 例肝功能障碍;12 例应用过量免疫抑制剂;26 例使用过量抗生素;10 例合并乙型病毒感染;8 例使用呼吸机;10 例并发呼吸系统感染;7 例伴有肠道感染。感染组患者术前肝功能障碍、过量用药及合并感染的比率均高于对照组,差异显著且具有统计学意义 ($P < 0.05$)。见表 1。

表 1 两组患者术前的基本情况比较($\bar{x} \pm S$; n=60,%)

Table 1 Comparison of the general data of patients between two groups

观察指标 Items	Infection	Control	P
平均年龄 Average age	62.50± 5.50	41.50± 2.50	0.023
肝功能障碍 Hepatosis	35(58.33%)	20(33.33%)	0.041
过量使用免疫抑制剂 Overdose of immunosuppressor	29(48.33%)	12(20.00%)	0.024
过量使用抗生素 Overdose of antibiotics	50(83.33%)	26(43.33%)	0.015
乙型病毒感染 Hepatitis B infection	31(51.67%)	10(16.67%)	0.014
呼吸机的使用 Respirator Application	21(35.00%)	8(13.33%)	0.028
呼吸系统感染 Respiratory infection	23(38.33%)	10(16.67%)	0.022
肠道感染 Intestinal infection	19(31.66%)	7(11.67%)	0.016

Note: compared between two groups, $P < 0.05$.

3 讨论

感染是肝硬化患者肝移植术后常见的并发症,肝移植术后患者由于常规应用激素和抗排斥药物,机体免疫机能低下,各种感染的临床表现很不典型,许多患者常无发热、全身毒血症状等表现,仅表现精神萎靡、乏力、纳差、头痛、全身肌肉酸痛不适等非特异性症状,使早期诊断和治疗有一定的难度^[16,17]。据报道,肝移植术后细菌感染率为 62.4%^[18]。我们的研究表明,患者的年龄、术前肝功能障碍、术前应用大剂量免疫抑制剂或大剂量广谱抗生素、合并乙型病毒感染、呼吸系统感染及肠道感染等均是肝移植术后发生感染的危险因素,其中呼吸系统感染明显高于其它感染。我们分析原因可能是患者年龄偏大、术前病情较重、多为肝硬化失代偿期患者;大多数患者术前使用过呼吸机,造成不同程度的呼吸系统损伤;此外,术前服用大量免疫

抑制类药物及抗生素,在免疫抑制状态下,正常寄生在胃肠道和皮肤的微生物可成为危险的致病菌,导致细菌感染,患者免疫力下降。因此,术前应严格控制免疫抑制类药物及抗生素等,根据药敏结果及时调整用药剂量,术后应注意患者身体的营养维持状况,可联合使用免疫抑制药物,减少患者机体的耐药性,缩短住院时间等,以降低患者术后发生感染的机率,提高临床疗效,延长患者的生存周期及生活质量^[19,20]。

综上所述,术后可依据患者的感染情况进行针对性的干预措施,积极的监测患者生命体征的变化情况,合理应用抗生素和免疫抑制剂,及时处理急性肾功能衰竭,改善移植肝功能等手段预防和减少感染的发生率^[20]。

参考文献(References)

- [1] Moreau R, Jalan R, Gines P, et al. Acute-on-chronic liver failure is a distinct syndrome that develops in patients with acute

- decompensation of cirrhosis [J]. Gastroenterology, 2013, 144 (7): 1426-1437
- [2] Wen J, Liu Q, Song J, et al. Lactulose is highly potential in prophylaxis of hepatic encephalopathy in patients with cirrhosis and upper gastrointestinal bleeding: results of a controlled randomized trial[J]. Digestion, 2013, 87(2): 132-138
- [3] Berzigotti A, De Gottardi A, Vukotic R, et al. Effect of meal ingestion on liver stiffness in patients with cirrhosis and portal hypertension[J]. PLoS One, 2013, 8(3): 58742
- [4] Bohte AE, van Dussen L, Akkerman EM, et al. Liver fibrosis in type I Gaucher disease: magnetic resonance imaging, transient elastography and parameters of iron storage[J]. PLoS One, 2013, 8(3): 57507
- [5] Arena U, Lupsor Platon M, Stasi C, et al. Liver stiffness is influenced by a standardized meal in patients with chronic hepatitis C virus at different stages of fibrotic evolution[J]. Hepatology, 2013, 58(1): 65-72
- [6] Silva MF, Sapisochin G, Strasser SI, et al. Liver resection and transplantation offer similar 5-year survival for Child-Pugh-Turcotte A HCC-patients with a single nodule up to 5 cm: a multicenter, exploratory analysis[J]. Eur J Surg Oncol, 2013, 39(4): 386-395
- [7] 熊璐, 郭晓东, 高银杰, 等. 肝移植术后替米夫定联合乙肝免疫球蛋白预防乙肝复发的研究 [J]. 现代生物医学进展, 2013, 13(08): 1498-1499+1535
- Xiong Lu, Guo Xiao-dong, Gao Yin-jie, et al. Clinical Study on the Combination of Telbivudine and HBIG to Prevent Hepatitis B Recurrence after Liver Transplantation [J]. Progress in Modern Biomedicine, 2013, 13(08): 1498-1499+1535
- [8] Rollag H, Asberg A, Ueland T, et al. Treatment of cytomegalovirus disease in solid organ transplant recipients: markers of inflammation as predictors of outcome [J]. Transplantation, 2012, 27, 94 (10): 1060-1065
- [9] Olmez A, Karabulut K, Aydin C, et al. Comparison of harmonic scalpel versus conventional knot tying for transection of short hepatic veins at liver transplantation: prospective randomized study [J]. Transplant Proc, 2012, 44(6): 1717-1719
- [10] Calmus Y, Duvoux C, Pageaux G, et al. Treatment of recurrent HCV infection following liver transplantation: results of a multicenter, randomized, versus placebo, trial of ribavirin alone as maintenance therapy after one year of PegIFN α -2a plus ribavirin [J]. J Hepatol, 2012, 57(3): 564-571
- [11] 郭晓东, 熊璐, 杨坤, 等. 阿德福韦酯联合乙肝免疫球蛋白预防 HBV 相关性终末期肝病肝移植术后复发的临床研究[J]. 现代生物医学进展, 2011, 11(11): 2122-2124
- Guo Xiao-dong, Xiong Lu, Yang Kun, et al. Effects of Adefovir Dipivoxil plus Hepatitis B Immunoglobulin in prevention of HBV recurrence in patients with HBV-related end-stage Liver disease after liver Transplantation [J]. Progress in Modern Biomedicine, 2011, 11 (11): 2122-2124
- [12] Henry SD, Nachber E, Tulipan J, et al. Hypothermic machine preservation reduces molecular markers of ischemia/reperfusion injury in human liver transplantation [J]. Am J Transplant, 2012, 12 (9): 2477-2486
- [13] Leithead JA, Ferguson JW, Hayes PC. Modifiable patient factors are associated with the late decline in renal function following liver transplantation[J]. Clin Transplant, 2012, 26(3): 316-323
- [14] Guo X, Xiong L, Zou L, et al. L1 cell adhesion molecule overexpression in hepatocellular carcinoma associates with advanced tumor progression and poor patient survival[J]. Diagn Pathol, 2012, 7: 96
- [15] Vidal E, Torre-Cisneros J, Blanes M, et al. Bacterial urinary tract infection after solid organ transplantation in the RESITRA cohort[J]. Transp Infect Dis, 2012, 14(6): 595-603
- [16] Levitsky J, Fiel MI, Norvell JP, et al. Risk for immune-mediated graft dysfunction in liver transplant recipients with recurrent HCV infection treated with pegylated interferon [J]. Gastroenterology, 2012, 142(5): 1132-1139
- [17] Moreno Elola-Olaso A, Davenport DL, Hundley JC, et al. Predictors of surgical site infection after liver resection: a multicentre analysis using National Surgical Quality Improvement Program data [J]. HPB (Oxford), 2012, 14(2): 136-141
- [18] 郭晓东, 孟繁平, 熊璐. HIF-1 α 的表达在肝移植后肝癌复发与转移中的意义[J]. 现代生物医学进展, 2011, 11(05): 876-879
- Guo Xiao-dong, Meng Fan-ping, Xiong Lu. Significance of HIF-1 α expression on the recurrency and metastasis of cancer after the liver transplantation[J]. Progress in Modern Biomedicine, 2011, 11 (05): 876-879
- [19] 温泉, 李红霞, 张硕, 等. 护理干预对慢性乙型肝炎患者遵医行为影响的研究[J]. 现代生物医学进展, 2012, 12(04): 713-715
- Wen Quan, Li Hong-xia, Zhang Shuo, et al. The Influence of Nursing Intervention on the Medical Behavior of Patients with Chronic Hepatitis B[J]. Progress in Modern Biomedicine, 2012, 12(04): 713-715
- [20] 周金平, 杨怡, 张艳, 等. 肝肿瘤患者射频消融术后并发症的护理[J]. 现代生物医学进展, 2013, 13(04): 726-728
- Zhou Jin-ping, Yang Yi, Zhang Yan, et al. Liver Tumor Radiofrequency Ablation in Patients with Postoperative Complications of Care [J]. Progress in Modern Biomedicine, 2013, 13 (04): 726-728