

doi: 10.13241/j.cnki.pmb.2014.17.036

白血病人化疗后实施保护性隔离预防感染的效果评价

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摘要 目的:探讨白血病患者化疗后实施保护性隔离对预防感染的临床效果。**方法:**2011年7月至2013年7月期间,我院诊治的80例白血病患者,随机分为对照组(常规预防感染措施)和观察组(保护性隔离措施),每组各40例,均于骨髓抑制期开始,给予相应的预防性感染措施,对两组临床疗效、中性粒细胞恢复正常时间,以及各项感染发生率,进行观察和比较。**结果:**与对照组相比,观察组有效率明显升高,中性粒细胞恢复正常时间明显缩短,发热、口腔溃疡、上呼吸道感染、肺炎、败血症等各项感染发生率明显降低,差异有统计学意义($P < 0.05$)。**结论:**白血病患者化疗后实施保护性隔离措施,能够明显降低感染发生率,值得临床推广。

关键词:白血病;化疗;保护性隔离;预防感染

中图分类号:R733.7 文献标识码:A 文章编号:1673-6273(2014)17-3338-03

The Efficacy Evaluation of the Protective Isolation on Infection after Chemotherapy for Leukemic Patients

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ABSTRACT Objective: To study the clinical efficacy of the protective isolation on infection after chemotherapy for leukemic patients. **Methods:** The 80 leukemic patients in our hospital during the period from July 2011 to July 2013 were randomized into the control group (routine preventive measures) and the observation group (protective isolation measures), 40 patients per group. The relative preventive infection measures were done after chemotherapy immediately in the two groups. The clinical efficacy, the neutrophil recovery time, and the incidence of all kinds of infections in the two groups were observed and compared. **Results:** Compared with the control group, the effective rate was significantly increased, while the neutrophil recovery time was obviously reduced, the incidences of all kinds of infections such as fever, oral ulcer, upper respiratory tract infection, pneumonia, and septicemia significantly decreased with statistical difference ($P < 0.05$). **Conclusion:** The protective isolation on infection after chemotherapy for leukemic patients can significantly reduce the incidence of infection and is worthy of clinical promotion.

Key words: Leukemia; Chemotherapy; Protective isolation; Prevention of infection

Chinese Library Classification(CLC): R733.7 Document code: A

Article ID: 1673-6273(2014)17-3338-03

前言

化疗是白血病患者主要的治疗方法,而化疗后会出现不同程度的骨髓抑制期,如果预防性护理措施不到位,患者在该阶段容易并发感染,甚至危及生命^[1-3]。如何通过有效预防感染措施,降低白血病患者化疗后骨髓抑制期的感染发生率,提高患者的预后质量,成为目前血液科临床医师研究的热点话题^[4-6]。本研究中,2011年7月至2013年7月期间,我院白血病患者,骨髓抑制期开始,给予保护性隔离措施,发挥了较好的临床效果,现将结果汇报如下,以供临床参考。

1 资料与方法

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(收稿日期:2013-11-04 接受日期:2013-11-30)

1.1 一般资料

2011年7月至2013年7月期间,我院诊治的80例白血病患者,随机分为对照组(常规预防感染措施)和观察组(保护性隔离措施),每组各40例。40例对照组患者中,男性患者30例、女性患者10例,平均年龄(41.0±5.0)岁,其中急性淋巴细胞白血病(ALL)13例、急性非淋巴细胞白血病(ANLL)27例;40例观察组患者中,男性患者29例、女性患者11例,平均年龄(40.0±5.5)岁,其中ALL14例、ANLL26例。两组性别、平均年龄、白血病类型比较,差异没有统计学意义($P > 0.05$),具有可比性。

1.2 预防感染方法

1.2.1 对照组预防性感染方法 于骨髓抑制期开始(外周血白细胞计数低于 $1\times10^9/L$),给予常规预防感染措施^[7-8]。严格无菌操作,病房每日消毒,限制探视时间和探视人数,避免交叉感染。

1.2.2 观察组预防性感染方法 于骨髓抑制期开始,在常规预防性感染措施基础上,给予保护性隔离措施。每周复查3次血常规,复查1次血生化,及时了解患者血象变化情况,及时给予相应处理^[9-11]。为了缓解患者口咽部干涩症状,给予清咽片含化,溃疡患者,给予漱口液勤漱口,必要时漱口液中含有普鲁卡因溶液^[12,13]。化疗后,预防性给予200mg伊曲康唑,每日2次,直至中性粒细胞 $>0.5\times10^9/L$,或者生命体征正常后停药。同时,给予抗菌药物、粒细胞集落刺激因子、成分输血等对症支持治疗。

1.3 观察指标及临床效果判定标准

对两组临床疗效、中性粒细胞恢复正常时间,以及各项感染发生率,进行观察和比较。根据医院感染标准^[14],将患者体

温、感染症状作为判定指标,对临床效果进行评定。(1)有效:体温 $\leq37.5^\circ\text{C}$,没有感染症状;(2)无效:体温 $>37.5^\circ\text{C}$,伴有感染症状。

1.4 统计学方法

采用SPSS18.0统计学方法,计数资料率的比较,采用卡方检验,计量资料以(均数±标准差)表示,采用Shapiro-Wilk(W检验)进行正态性检验,对于正态分布数据,组间比较采用t检验,偏态分布数据采用Mann-Whitney U检验,P<0.05差异有统计学意义。

2 结果

2.1 两组临床疗效比较

与对照组相比,观察组有效率明显升高,P<0.05,差异有统计学意义,见表1。

表1 两组临床疗效比较[例(%)]

Table 1 The comparison of clinical efficacy in the two groups [n(%)]

组别 Group	例数 n	有效 Effective Rate	无效 Non-effective Rate
观察组 Observation Group	40	27(67.5%)	13(32.5%)
对照组 Control Group	40	16(40.0%)	24(60.0%)
卡方值 X ² Value			6.08
P 值 P Value			<0.05

2.2 两组中性粒细胞恢复正常时间比较

与对照组相比,观察组中性粒细胞恢复正常时间明显缩

短,P<0.05,差异有统计学意义,见表2。

表2 两组中性粒细胞恢复正常时间比较($\bar{x}\pm s$)

Table 2 The comparison of neutrophil recovery time in the two groups ($\bar{x}\pm s$)

组别 Group	例数 n	中性粒细胞恢复正常时间(天) Neutrophil Recovery Time(d)
观察组 Observation Group	40	11.0±6.0
对照组 Control Group	40	16.0±7.0
T 值 T Value		2.41
P 值 P Value		<0.05

2.3 两组各项感染发生率比较

与对照组相比,观察组发热、口腔溃疡、上呼吸道感染、肺

炎、败血症等各项感染发生率明显降低,P<0.05,差异有统计学意义,详细结果见表3。

表3 两组各项感染发生率比较[n(%)]

Table 3 The comparison of the incidence of all kinds of infections [n(%)]

组别 Group	例数(n)	上呼吸道感染				
		发热 Fever	口腔溃疡 Oral Ulcer	Upper Respiratory Tract Infection	肺炎 Pneumonia	败血症 Septicemia
观察组 Observation Group	40	10(25.0%)	2(5.0%)	8(20.0%)	0(0.0%)	0(0.0%)
对照组 Control Group	40	33(82.5%)	12(30.0%)	24(60.0%)	10(25.0%)	12(30.0%)
卡方值 X ² Value		26.60	8.99	13.33	11.43	14.12
P 值 P Value		<0.05	<0.05	<0.05	<0.05	<0.05

3 讨论

早期、足量化疗是白血病治疗的基本原则,但化疗后患者由于免疫力低下、三系细胞数量减少,以及细胞功能缺陷等原因,极易导致机体出现严重感染,甚至危及生命。骨髓抑制期患者极易并发严重感染,不仅影响患者生命,降低患者的生存率,还会影响化疗的整体疗效^[15,16]。而导致感染的致病菌多数来自医院环境,所以,化疗后积极防治并发症,尤其是骨髓抑制期做好相应预防性感染措施,降低白血病患者医院感染的发生率,这对于提高患者的生存率,具有非常重要的临床意义^[17,18]。

白血病患者化疗后感染多发生于口腔、呼吸道和肛周。保护性隔离措施通过做好空气消毒,提高空气洁净度,减少探视时间和探视人数,做好防护隔离,避免直接接触患者;指导患者合理饮食,做好口腔、呼吸道、肛周等预防性感染措施,使患者处于一个相对无菌的环境中,降低感染的发生率^[19]。而条件允许的医院,尽可能采用层流室进行隔离保护,通过新风系统清除99.9%以上的尘埃和细菌,从而净化空气,基本达到无菌的封闭病房环境。而且,限制探视人员与患者的直接接触,确保了层流室病房的洁净度^[20]。

白血病患者化疗后预防性感染措施中主要以伊曲康唑等药物为主,能有效抑制化疗后粒细胞数量的急剧减少和细胞功能的严重缺陷,从而降低化疗后严重医院感染的发生率,减少化疗后不良反应的发生率。本研究中,与对照组相比,观察组有效率明显升高,中性粒细胞恢复正常时间明显缩短,发热、口腔溃疡、上呼吸道感染、肺炎、败血症等各项感染发生率明显降低。这表明白血病患者化疗后实施保护性隔离措施,能够明显降低感染发生率。

综上,白血病患者化疗后感染是一个复杂的问题,涉及到医疗、药学和护理等方方面面,应该把保护性隔离措施贯彻到血液科的日常工作中去。

参考文献(References)

- [1] Oguz A, Karadeniz C, Ckitak E C, et al. Which One Is a Risk Factor for Chemotherapy-Induced Febrile Neutropenia in Childhood Solid Tumors: Early Lymphopenia or Monocytopenia [J]. Pediatr Hematol Oncol, 2006, 23(2):143-151
- [2] 郭建梅, 倪杰. 保护性隔离在化疗致粒细胞缺乏症中的应用[J]. 黑龙江医学, 2006, 30(7):539-539
- [3] 郑志海, 胡建达, 刘庭波, 等. 老年急性髓系白血病诱导缓解化疗的疗效及预后分析[J]. 中华血液学杂志, 2012, 33(2):79-83
- [4] 白艳玲, 刘冰, 孙惠英等. 化疗后中性粒细胞缺乏白血病患者医院感染的护理进展[J]. 护理学报, 2011, 18(17):27-30
- [5] 吕莎, 王天有, 杨园园, 等. 层流病房对急性白血病患儿骨髓抑制期保护作用的分析[J]. 中国小儿血液与肿瘤杂志, 2010, 15(5):222-224
- [6] 樊丽群. 小儿急性淋巴细胞白血病化疗期间的护理 [J]. 现代医院, 2011, 11(1):102-103
- [7] Santolaya M E, Rabagliati R, Bidart T, et al. Consensus : Rational Approach Towards the Patient with Cancer, Fever and Neutropenia[J]. Rev Chilena Infectol, 2005, 22(Suppl 2):79-113
- [8] 刘晓霞, 李秀娟, 张玉英, 等. 保护性隔离措施在恶性肿瘤手术中的应用[J]. 中国现代药物应用, 2010, 4(7):220
- [9] Lo N, Cullen M. Antibiotic Prophylaxis in Chemotherapyinduced Neutropenia: Time to Reconsider [J]. Hematol Oneol, 2006, 24(3):120-125
- [10] Flowers CR, Karten C. Communicating safe outpatient management of Fever and neutropenia[J]. J Oncol Pract, 2013, 9(4):207-210
- [11] Borg C, Ray-Coquard I, Philip I, et al. CD4 Lymphopenia As a Risk Factor for Febrile Neutropenia and Early Death after Cytotoxic Chemotherapy in Adult Patients with Cancer [J]. Cancer, 2004, 101(11):2675-2680
- [12] Maeias A E, Ponce-de León S. Infection Control:Old Problems and New Challenges[J]. Arch Med Res, 2005, 36(6): 637-645
- [13] Fritzsehe K Stress Y, Stein B, et al. Psychosomatic Liaison Service in Hematological Oncology:Need for Psychotherapeutic Interventions and Their Realization[J]. Hematol On col, 2003, 21(2):83-89
- [14] 王晓萍, 郑肖芬, 张苑, 等. 对急性白血病病人陪护者洗手依从性的干预研究[J]. 全科护理, 2010, 08(20):1797-1798
- [15] 徐慧颖, 李亚洁, 赵洁, 等. 成人急性白血病患者医院感染危险因素分析[J]. 护理学报, 2008, 15(4):4-7
- [16] 林臻, 张弛. 白血病患者医院感染的研究进展 [J]. 医学综述, 2008, 14(4):585-587
- [17] 阮艳萍, 张文英. 化疗致中性粒细胞缺乏症患者感染的危险因素研究[J]. 中华医院感染学杂志, 2010, 20(1):38-40
- [18] Ruan Yan-ping, Zhang Wen-ying. The research of risk factors on infection patients with neutropenia induced by chemotherapy [J]. Chinese Journal of Nosocomiology, 2010, 20(1):38-40

(下转第 3400 页)

- [34] Nations S P, Boyer P J, Love L A, et al. Denture cream An unusual source of excess zinc, leading to hypocupremia and neurologic disease[J]. Neurology, 2008, 71(9): 639-643
- [35] Sampaio Maia B, Figueiral M H, Sousa Rodrigues P, et al. The effect of denture adhesives on Candida albicans growth in vitro[J]. Gerodontology, 2012, 29(2): 348-356
- [36] Kulak Y, ozcan M, Arikan A. Subjective assessment by patients of the efficiency of two denture adhesive pastes[J]. Journal of Prosthodontics, 2005, 14(4): 248-252
- [37] Pradies G, Sanz I, Evans O, et al. Clinical study comparing the efficacy of two denture adhesives in complete denture patients [J]. The International journal of prosthodontics, 2009, 22(4): 361
- [38] Figueiral M H, Fonseca P A, Pereira-Leite C, et al. The effect of different adhesive materials on retention of maxillary complete dentures[J]. The International journal of prosthodontics, 2011, 24(2): 175
- [39] Shay K. Denture adhesives. Choosing the right powders and pastes[J]. The Journal of the American Dental Association, 1991, 122(1): 70-76
- [40] Nicolas E, Veyrune J, Lassauzay C. A Six-Month Assessment of Oral Health-Related Quality of Life of Complete Denture Wearers Using Denture Adhesive: A Pilot Study[J]. Journal of Prosthodontics, 2010, 19(6): 443-448
- [41] Grasso J E, Rendell J, Gay T. Effect of denture adhesive on the retention and stability of maxillary dentures[J]. The Journal of Prosthetic Dentistry, 1994, 72(4): 399-405
- [42] Ozcan M, Kulak Y, De Baat C, et al. The effect of a new denture adhesive on bite force until denture dislodgement [J]. Journal of Prosthodontics, 2005, 14(2): 122-126
- [43] de Baat C, van' t Hof M, Van Zeghbroeck L, et al. An international multicenter study on the effectiveness of a denture adhesive in maxillary dentures using disposable gnathometers [J]. Clinical Oral Investigations, 2007, 11(3): 237-243
- [44] Ekstrand K, Hensten-Pettersen A, Kullmann A. Denture adhesives: cytotoxicity, microbial contamination, and formaldehyde content[J]. The Journal of Prosthetic Dentistry, 1993, 69(3): 314-317
- [45] Felton D, Cooper L, Duquim I, et al. Evidence-Based Guidelines for the Care and Maintenance of Complete Dentures: A Publication of the American College of Prosthodontists[J]. Journal of Prosthodontics, 2011, 20(s1): S1-S12
- [46] Sherman R G, Prusinski L, Ravenel M C, et al. Oral candidosis[J]. Quintessence international (Berlin, Germany: 1985), 2002, 33 (7): 521
- [47] 冯剑桥, 安静涛, 王锐. 义齿承托区粘膜调理剂的应用研究 [J]. 哈尔滨医科大学学报, 2008, 42(4): 424-426
- Feng Jian-qiao, An Jing-tao, Wang Rui. Research on Application of denture bearing area mucosa conditioner [J]. Journal of Harbin Medical University, 2008, 42(4): 424-426
- [48] Sadamori S, Hamada T, Hong G, et al. Comparison of recognition about denture adhesive between Japanese and Indonesian dentists: A pilot study[J]. Maj. Ked. Gigi (Dent. J), 2005, 38: 189-193
- [49] Sadamori S, Hamada T, Hong G, et al. Is it possible to distinguish the understanding of denture adhesive between Japanese dental students and Indonesian peers by a questionnaire [J]. Isi, 2006, 39(3):112-114
- [50] Fakhri H, Fayaz A, Faramarzi F, et al. The knowledge and attitude of general dentists toward denture adhesives in Tehran[J]. Indian Journal of Dental Research, 2009, 20(2): 164

(上接第 3340 页)

- [18] 周淑娟, 马泳泳, 孙岚, 等. 层流床在初治急性白血病中的应用[J]. 中国医师进修杂志, 2010, 33(25):65-66
- Zhou Shu-juan, Ma Yong-yong, Sun Lan, et al. Applications of laminar flowbed in newly diagnosed acute leukemia [J]. Chinese Journal of Postgraduates of Medicine, 2010, 33(25):65-66
- [19] 金卫群. 血液病房医院感染管理及控制[J]. 中华医院感染学杂志, 2009, 19(12):1538-1540
- Jin Wei-qun. Hospital Infection Management and Control in Hematology Ward [J]. Chinese Journal of Nosocomiology, 2009, 19(12): 1538-1540

- [20] 张卫华, 张亚茹. 恶性肿瘤同步放疗后发生 IV 度骨髓抑制的分析及护理[J]. 基层医学论坛, 2011, 15(21):604-605
- Zhang Wei-hua, Zhang Ya-ru. The analysis and nursing of IV degree of bone marrow suppression for patients with malignant tumor after radiotherapy[J]. Public Medical Forum Magazine, 2011, 15(21):604-605