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论著

自体造血干细胞移植治疗重症/难治性自身免疫病的淋巴细胞亚群演变

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摘要 摘要：目的 研究自体造血干细胞移植（HSCT）治疗重症/难治性自身免疫病（AID）的淋巴细胞亚群免疫重建规律。方法 以2003年4月～2005年4月在我院行HSCT的13例AID患者和40例正常对照者为研究对象,采用流式细胞学技术分别于动员前、后,移植后2周,1、3、6、12及18个月共8个时间窗监测受试者体内的淋巴细胞、T细胞（CD3+）、B细胞（CD19+）、NK细胞 (CD3-CD16+CD56+)、Th细胞（CD3+CD4+）、Tc细胞（CD3+CD8+）、纯真T细胞（CD4+CD45RA）、记忆 T 细胞（CD4+CD45RO）和CD4/CD8比值的变化。结果 13例AID患者中,系统性红斑狼疮（SLE）8例,类风湿关节炎（RA）4例,原发性干燥综合征（pSS）1例。动员前SLE组的淋巴细胞各亚群均明显低于正常人和RA组(P均<0.01）。B细胞在移植后18个月内从0恢复至正常。NK细胞和T细胞亚群未恢复至正常,NK细胞恢复较快,维持低水平; T细胞亚群中的CD4+T细胞恢复迟于CD8+T细胞, 纯真T细胞恢复迟于记忆T细胞。结论 SLE患者外周血中淋巴细胞、T细胞及各亚群、B细胞、NK细胞异常较RA患者更明显。AID患者体内和移植物的T/B细胞去除有效,非清髓性处理可能成为AID复发隐患,CD4＋T细胞的长期受抑可能与AID患者移植后病情缓解相关。

关键词 自体造血干细胞移植 自身免疫病 淋巴细胞亚群

分类号

Changes of Lymphocyte Subsets in Autologous Hemopoietic Stem Cell Transplantation for Severe/refractory Autoimmune Disease

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Abstract ABSTRACT:Objective To investigate the dynamic changes of lymphocyte subsets before and after autologous hemopoietic stem cell transplantation (HSCT) in severe/refractory autoimmune disease (AID) and study the post-transplantation immunological reconstitution in AID. Methods Thirteen patients with severe/refractory AID who registered for HSCT from April 2003 to April 2005 in Peking Union Medical College Hospital, including 8 patients with systemic lupus erythematosus, 4 patients with rheumatoid arthritis, and 1 patient with primary Sj gren s syndrome (pSS) were enrolled in this study. Blood samples were collected before/after mobilization, before conditioning, and 2 weeks, 1 month, 3 months, 6 months, 12 months, and 18 months post-transplantation. Lymphocyte subsets were tested by flow cytometry as follows: T cell （CD3+）, B cell （CD19+）, natural killer (CD3-CD16+CD56+), Th（CD3+CD4+）, Tc（CD3+CD8+）, na ve T（CD4+CD45RA）, memory T（CD4+CD45RO）, and CD4/CD8 ratio. Results Lymphocyte subsets for SLE patients were severely abnormal compared to normal or RA patients (both P<0.01). B cell reconstituted to normal level within 18 months, meanwhile NK and T cell remained low. The repopulations of Th and na ve T cell were delayed, which caused the up-side-down of CD4/CD8 ratio and low level of na ve T cell percentage for a relatively long time. Conclusions Lymphocyte subsets abnormality in SLE patients are more severe than in RA patients. Although most autoimmune T/B cell in the grafts and patients can be effectively removed after transplantation, nonmyeloablative conditioning may be a risk for the relapse of AID. The long-term inhibition of CD4+ T cell may be related with the relief of AID after transplantation.

Key words autologous hematopoietic stem cell transplantation autoimmune disease lymphocyte subset

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