研究快报

自体外周血纯化 CD34+ 造血干细胞移植治疗系统性红斑狼疮的临床报告

曾 抗[1]袁彭学标[1]袁孙 竞[2]袁余 丹[2]袁孟凡义[2]渊第一军医大学南方医院[1]皮肤科袁血液科袁广东 广州 510515冤

关键词院红斑狼疮袁系统性曰移植袁自体曰造血干细胞移植
中图分类号院R593.241 文献标识码院B 文章编号院1000-2588渊2002冤11-1052-01

我们对 1 例常规皮质类固醇激素和免疫抑制剂治疗效果不好的重症系统性红斑狼疮渊SLE冤患者采用自体外周血纯化 CD34+ 造血干细胞移植治疗袁疗效满意袁现报告如下遥

患者女袁16 岁袁确诊为 SLE 1年遥入院时 SLE 病情活动度计分渊SLEDAI冤为 21 分遥应用地塞米松及环磷酰胺治疗 3 个月袁病情无缓解袁征得患者家属同意后袁以行自体外周血纯化 CD34+ 细胞移植治疗遥外周血干细胞动员方案为 CTX+ 粒细胞集落刺激因子渊G-CSF冤遥静脉滴注 CTX2.0g/ 次袁 次 /d袁共 3 d遥待外周血白细胞渊WBC冤降为 0 时袁皮下注射 G-CSF300 滋g袁1 次 /d曰当 WBC 升为 11G/L袁用 CS-3000Plus 血细胞分离机渊Baxter 公司产品冤采集干细胞袁共 3 次袁循环血量为 10 l遥采集前外周血及采集物分别作单核细胞及 FACscan 流式细胞仪 CD34+ 细胞计数及 T 细胞和 B 细胞表型分析遥将采集物用 CliniMACS渊德国 Amcell 公司冤免疫磁珠方法进行 CD34+ 细胞的纯化袁纯化后 CD34+ 细胞纯度为 99.2%袁细胞数为 15.13伊10[6]/kg袁纯化后 T 细胞减少 3.5 个对数级袁CD3+ 细胞数仅为 1.35伊10[5] 个 /kg渊b.w.冤遥预处理方案为 CTX+ 抗胸腺细胞免疫球蛋白 渊ATG冤 甲基强的松龙 渊MP冤袁其中每天使用 CTX50 mg/kg渊b.w.冤袁连续 4 d曰ATG2.5mg/kg渊b.w.冤袁连续 3 d曰MP 第 1 天 1.0g袁后 2 d 为 0.5g袁静脉滴注遥预处理完成后 24 h 回输纯化后的 CD34+ 细胞袁共 60ml遥观察移植前后临床表现和免疫指标的变化遥结果显示袁移植术后患者的临床表现基本消失袁异常的免疫学指标恢复正常袁自身抗体全部转阴遥移植术后 4 周 SLEDAI 为 0 分遥目前已停用皮质类固醇激素 3 月余袁经随访各项指标均正常遥

摧毁病态免疫系统袁重建正常免疫细胞体系是自体造血干细胞移植治疗 SLE 的主要机制遥去除移植物中自身免疫细胞及移植后进一步清除体内的自身免疫细胞可减少复发袁是移植成功的关键遥我们的资料证实袁纯化的自体外周血 CD34+ 造血干细胞移植治疗 SLE 近期疗效明显袁有望获得根治袁远期疗效还有待长期随访观察遥

Transplantation of purified CD34+ stem cells from autologous peripheral blood for treatment of systemic lupus erythematosus

ZENGKang[1],PENGXue-biao[1],SUNJing[2],XUDan[2],MENGFan-yi[2]
[1]Department ofDermatology, [2]Department ofHematology, Nanfang Hospital, First MilitaryMedical University, Guangzhou510515,China

Key words: lupuserythematosus,systemic;transplantation,autologous;hematopoieticstemcelltransplantation

Weusedthetransplantationofpurifiedautologousperipheralblood CD34+ stem cells to treat a 16-year-old female patient withsystemic lupuserythematosus (SLE), whohadreceivedunsuccessfultreatmentwithsteroidsandimmunosuppressants, and hasachievedsatisfactorytherapeuticeffect.

ThediagnosisofSLEwasestablishedoneyearago, andthepatienthadSLEDiseaseActivityIndex (SLEDAI) of21onadmission. After ineffectivetreatmentwithdexamethasoneandcyclophosphamid(CTX)for3months,purifiedautologousperipheralbloodCD34+ stemcelltransplantationwasadopted.Autologous peripheral hematopoietic stem cells were mobilized by intravenousinjectionof2.0g/dcyclophosphamid (CTX) for3dand subcutaneous injection of granulocyte colony-stimulating factor (G-CSF,300 滋g/d). A CS-3000plusbloodcellseparatorwasused tocollectperipheralbloodstemcells, andcellcountofmononuclearcellsandCD34+ stemcellsandepitopeanalysisofTandB lymphocyteswereperformedbyFACscanflowcytometry. After purification with CliniMACS, the number of CD34+ stem cells reached15.13伊10[6]/kg, whilethatofCD3+ cells wereonly1.35伊10[5]/kg. Pretreatmentofthepatientconsistedofintravenousinjectionof CTX 渊10mg/kgeachday冤for4consecutivedaysandantithymocyteglobulin(ATG, 2.5mg/kgeachday) for3consecutivedayswithmethylprednisolone(MP)atthedoseof1.0gonthe firstdayand0.5gonthefollowing2days.Thegranulocyteswere recoveredbyG-CSFstimulation. ThepurifiedCD34+ stemcells (60ml) were reinfusedwithin24hafterpretreatment, following which changesinclinicalmanifestationsandimmunologicmarkerswerecomparedwiththosebeforethetransplantation. Clinical andimmunologicremissions were achieved aftertransplantation, withalltheautoantibodiesreversedtothenegative,suggestingthe short-termeffectivenessofthistherapy.Basedonthisobservation, weconcludethatthistherapyispossibletoeffectaneventualcure of SLEinthiscase, butthe long-termeffectneedstobe further observedinthefollow-upstudy.

收稿日期院2002-11-02
作者简介院曾 抗渊1959-冤袁男袁主任医师袁副教授袁硕士生导师袁电话院020-61641114-87138