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论著

干细胞白血病基因在再障和正常骨髓基质细胞中的表达

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摘要 目的：了解白血病干细胞(SCL)基因在再生障碍性贫血(AA)骨髓基质细胞 (BMSC)及骨髓细胞中的表达情况。方法：收集9例AA和33例正常骨髓标本。体外长期培养扩增BMSC，并收集悬浮细胞。运用反转录聚合酶链反应酶联免疫吸附测定(RT-PCR-ELISA)检测SCL基因在BMSC和悬浮细胞中的表达，分析表达率，并以管家基因β2微球蛋白(β2M)为内参照进行半定量分析。结果：SCL基因在AA的BMSC中的表达率(22.2%)低于正常对照组(69.7%，P<0.05)。SCL基因在AA的悬浮细胞中的表达率(87.5%)高于其对应的BMSC(P<0.05)。PCR-ELISA半定量分析结果显示，SCL基因在正常对照组悬浮细胞中的表达水平高于其对应的BMSC (P<0.05)。结论：SCL基因在AA的BMSC中的相对低表达状态提示可能与AA造血调控异常有关。

关键词 基因表达； 间质细胞,骨髓； 贫血,再生障碍性

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Expression of SCL gene in bone marrow stromal cells from normal individuals and patients with aplastic anemia

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Abstract

<FONT face=Verdana><FONT face=Verdana>AIM: To investigate the expression of SCL (stem cell leukemia) gene in bone marrow stromal cells (BMSCs) and bone marrow hematopoietic cells from patients with aplastic anemia （AA） and normal individuals. METHODS: Bone marrow stromal cells from AA (9 cases) and normal individuals (33 cases) were amplified by long-term in vitro culture. The adherent and nonadherent cells were collected respectively. RT-PCR-ELISA assay was then performed to detect the expression of SCL gene and the housekeeping gene β2 microglobulin (β2M). The expression ratio of SCL gene were analyzed and its expression level was normalized by β2M gene acting as an internal calibration for the purpose of semi-quantitative analysis. RESULTS: The expression ratio of SCL gene was lower in BMSCs from AA (22.2%) than that in normal controls (69.7%, P<0.05) and in the nonadherent cells from AA than that in their corresponding BMSCs (P<0.05). Semi-quantitative analysis by PCR-ELISA showed that SCL gene expression level in nonadherent cells from normal control was significantly higher than that in their corresponding BMSCs (P<0.05). CONCLUSION: The state of low expression of SCL gene in BMSCs from AA suggests that it may be involved in the abnormal regulation of hematopoiesis in AA.</FONT></FONT>

Key words Gene expression Stromal cells bone marrow Anemia aplastic

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