论著

# 急性白血病患者骨髓细胞nucleostemin基因的表达与其类型、疗效的关系

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摘要　　目的：探讨nucleostemin（NS）基因在急性白血病中的表达及临床意义。
方法:采用荧光定量PCR的方法检测67例急性白血病患者骨髓细胞nucleostemin基因表达，分析其表达与临床的关系。
结果:初治急性白血病患者nucleostemin 基因的表达水平高于完全缓解组、正常对照组（P＜0.01），急性淋巴细胞白血病（ALL）患者nucleostemin表达水平低于急性非淋巴细胞白血病（ANLL）患者（P＜0.05），ANLL中M2、M3、M4、M5患者nucleostemin表达进行两两比较无显著差异（P＞0.05),急性白血病患者nucleostemin表达水平与性别、年龄、肝、脾肿大和外周血白细胞数无明显相关（P＞0.05），nucleostemin 基因高表达的急性白血病患者的症状完全缓解（CR）率低于低表达的患者（51.3% vs 83.3%，P＜0.05),急性白血病患者治疗达完全缓解者nucleostemin呈低表达，nucleostemin 持续高表达或下降后又上升的患者呈现难治及复发。
结论:Nucleostemin基因在急性白血病细胞中高表达，可作为疗效评价及监测残留病灶的指标。
关键词　 骨髓细胞； 基因,核干细胞因子； 白血病
分类号 R733.71

# Correlation between the expression level of nucleostemin gene in marrow cells of the patients with acute leukemia and its clinical types, therapy efficacy

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**Abstract**

AIM: To investigate nucleostemin gene expression in bone marrow of acute leukemia and its clinical significance.
METHODS: The expression of nucleostemin in 67 acute leukemia patients was detected by fluorescent quantitative polymerase chain reaction (FQ-PCR). The correlation between the expression level of nucleostemin gene and clinical significance was analyzed.
RESULTS: Significantly higher expression levels of nucleostemin gene were detected in the initially-treated acute leukemia patients than those in normal control group and complete remission (CR) group by FQ-PCR (P<0.01). The expression level of nucleostemin gene in the cells from ALL was significantly lower than that of the cells in ANLL (P<0.05). No significant difference of nucleostemin expression in various differentiation stages (M2, M3, M4, M5) of ANLL was found (P>0.05). No significant association was observed between nucleostemin expression levels and age, sex, hepatauxe, splenomegaly, WBC count of acute leukemia patients by logistic analysis. The patients with positive expression of nucleostemin had significantly lower complete remission rate than those with negative expression (51.3% vs 83.3%, P<0.05). The nucleostemin expression level was significantly reduced during complete remission. Long-term follow-up of nucleostemin expression level showed that continuous or significant increase in nucleostemin expression in acute leukemia patients predicts refractoriness and impending relapse.
CONCLUSION: Expression level of nucleostemin in acute leukemia patients is obviously higher than that in normal control. Nucleostemin can be a marker for evaluating therapy efficacy and monitoring minimal residual diseases (MRD) in leukemias.

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